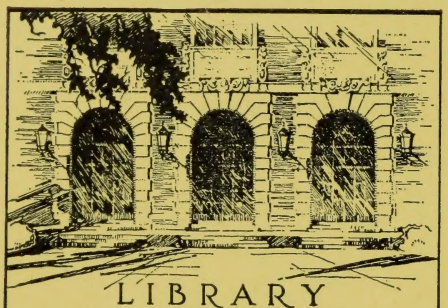
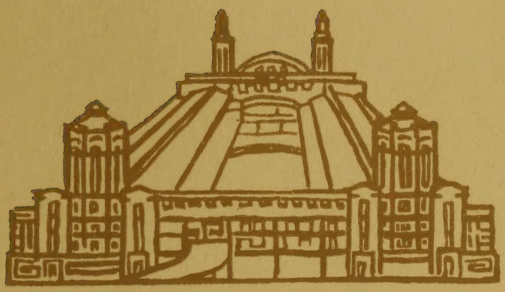

LIBRARY
OF THE
UNIVERSITY
OF ILLINOIS

C
IZu3Ic
1957/58-
1962/63
cop.2

C
IZu3Ic
1957/58
cop. 2

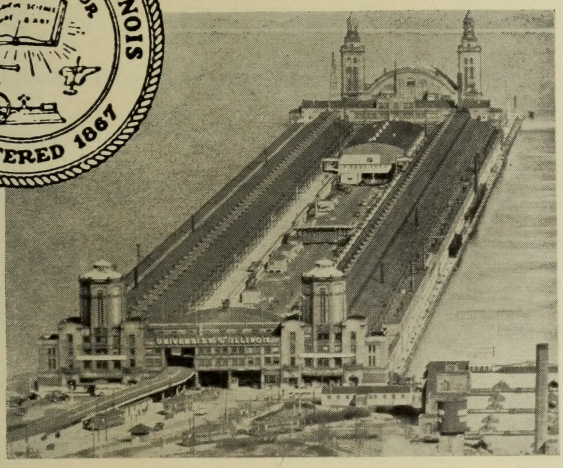
7299-21
Ag



UNIVERSITY OF ILLINOIS

1957-1958 CATALOG CHICAGO UNDERGRADUATE DIVISION

THE LIBRARY OF THE
OCT 11 1957
UNIVERSITY OF ILLINOIS



University of Illinois

Chicago Undergraduate Division

Navy Pier

Chicago

THE LIBRARY OF THE
OCT 10 1957
UNIVERSITY OF ILLINOIS

IZu3Ia
1967/SB-11-
c-2

CONTENTS

	Page
Your University	4
Admission	5
Tuition and Fees	15
Veterans' Information	17
Scholarships	20
Selective Service Deferment	20
Student Welfare Services	21
Extra-Curricular Activities	26
University Services	30
Courses Required of All Students	32
College of Commerce and Business Administration	34
College of Engineering	38
Architecture and Art	43
College of Liberal Arts and Sciences	46
School of Physical Education	56
Army Reserve Officers' Training Corps	58
Courses of Instruction	61
Calendar	80
Board of Trustees	81
Administrative Officers	82
Academic Personnel	83
Index	91

Your University

The Chicago Undergraduate Division of the University of Illinois is entering its twelfth school year. Since 1946 this campus of the University has offered a well-rounded educational program to thousands of students who have found it to their advantage to live in the Chicago metropolitan area while attending college. The campus is conveniently located on Chicago's Navy Pier, at the foot of Grand Avenue and Lake Michigan. This Division offers the first two years work in three colleges—Commerce and Business Administration, Engineering Sciences (including Architecture and Architectural Engineering), and Liberal Arts and Sciences—and professional curricula in Physical Education for men and women.

In addition, pre-professional courses of study necessary for admission to the professional colleges and schools of medicine, dentistry, veterinary medicine, education, journalism, and nursing are available.

The courses, held during the daytime hours only, are exactly like those offered in the same fields of study on the University of Illinois campus at Urbana-Champaign. The schedule of fees and admission requirements are the same on both campuses.

Excellent instructional facilities are provided in the school's sixty-eight classrooms and thirty-three modern, fully-equipped laboratories. A 75,000-volume library, recreational facilities, well-furnished lounges, and food service supplement the academic program. A large gymnasium adjacent to the main building houses the athletic program. The basic courses and the first year of the advanced course in Army R.O.T.C. are available on a voluntary basis for men students.

As an important part of the services of the Student Counseling Bureau, educational and vocational guidance counseling are offered to prospective students. Counseling services of the Bureau, as well as those of the Dean of Men and Dean of Women, are available to students at all times.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of the University of Illinois tradition.

Admission

THERE ARE SEVEN STEPS

In order to become a student at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

1. Obtain an application for admission. The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.

2. Provide the Office of Admissions and Records with an official transcript of his record in high school and his record at *each* college or institution of higher education which he has attended since leaving high school. The applicant must assume responsibility for having these records forwarded directly to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, by an official of the school concerned.

The applicant should arrange with the registrar of his high school and of *each* college or university he has attended to have his transcripts forwarded to this office as soon as possible to permit an early evaluation of his credentials.

In addition, applicants who have been on active duty in the Armed Forces must also submit photo copies of their service separation papers.

3. Decide which college and curriculum in the University he desires to enter. To assist applicants in making this decision, the Chicago Undergraduate Division of the University offers Vocational and Educational Aptitude Examinations which are followed by professional counseling.

For new freshmen, these guidance examinations are a required activity of the orientation period. Exception: Students ranking in the lowest quarter of their class should not take these examinations, but should follow the procedure listed in Paragraph IVA, page 11.

However, since the *time* available for counseling during the orientation period is extremely *limited,* these examinations and counseling interviews are now being offered several months in advance. Appointment requests for these examinations may be made through the Office of Admissions and Records. If the applicant has any question whatsoever as to the

course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

4. Complete and return the application blank.

5. When an applicant's case is complete, that is, after his completed application blank and all necessary supporting records and transcripts have been received, the case will be evaluated. If the application is approved, the applicant will be sent a permit to enter, an appointment for such placement, guidance, and motor fitness tests as may be necessary, an appointment for a physical examination, and information as to the date and place of his college meeting and of registration. If the application is not approved, the Office of Admissions and Records will send the applicant written notice of this action, explain his deficiencies, and make suggestions as to the manner in which he may remove them and qualify for admission.

6. Report to Navy Pier for physical examination, college meeting, and tests listed in paragraph 5 above, on the dates specified in the notice which the applicant has received.

7. Register, pay tuition and fees, and start classes.

ADMISSION REQUIREMENTS

ADMISSION WITHOUT ENTRANCE EXAMINATIONS (BY CERTIFICATE)

I. High School Graduates

The admission requirements to the University of Illinois are divided into two groups: Group A, General University Admission Requirements, which apply to every student entering the University of Illinois; and Group B, Specific Subject Requirements for admission to a particular college and curriculum within the University, which apply to every student entering that college and curriculum.

Since each student entering the University of Illinois must enroll in a particular college and curriculum within the University, *each student must meet both sets of admission requirements,* i.e., the General University Admission Requirements and the Specific Subject Requirements for the college and curriculum of his choice.

A. GENERAL UNIVERSITY ADMISSION REQUIREMENTS

These requirements must be met by all applicants. For definition of the terms used and description of the subjects acceptable in satisfaction of the requirements, please refer to C and D.

1. Graduation from an accredited high school. Students ranking in the fourth quarter of their high school class, see Paragraph IVA, page 11.

2. An applicant must be at least sixteen years of age. This requirement may be waived for a student fifteen years of age on recommendation of the dean of the college concerned, provided the student resides with his parents or guardian, or someone selected by them while attending the University.

3. Fifteen units of acceptable secondary school work distributed as follows:

a. A minimum of nine units of work in the academic fields (English, mathematics, sciences, foreign languages, history, and social studies) including:

(1) At least three units of English.

(2) At least two majors (including English) and one minor selected from the list of acceptable majors and minors below.

Exception: The requirement of a second major is waived for applicants who rank in the upper half of their graduating class scholastically.

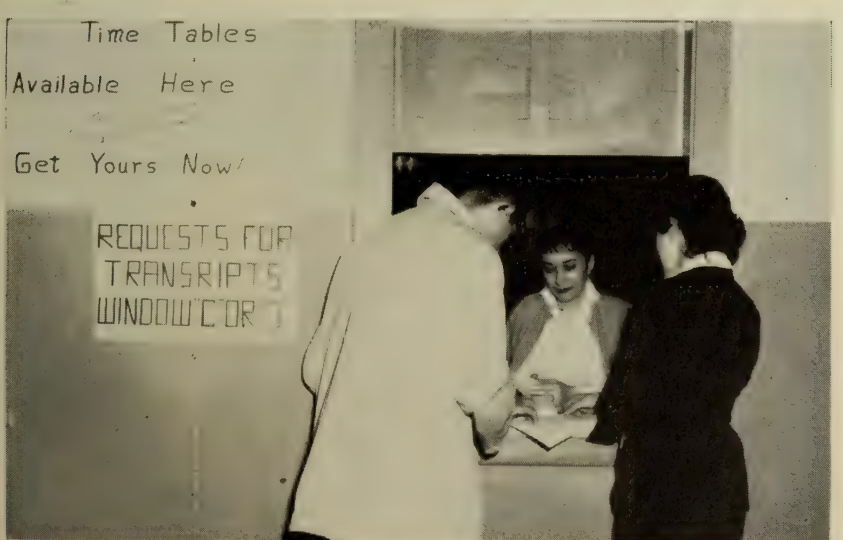
b. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet the standards for accrediting.

B. COLLEGE SUBJECT REQUIREMENTS

Applicants must present credit in the subjects required for admission to the college and curriculum of their choice (see chart on page 13).

C. DEFINITIONS OF MAJORS AND MINORS

1. **Unit.** A unit is the equivalent of two high school credits, i.e., the



value given to a course of study covering two semesters and including not less than the equivalent of 120 sixty-minute periods of class-room work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

2. **Major.** A major consists of a three-year sequence in one academic field.

3. **Minor.** A minor consists of a two-year sequence in one academic field.

Please note that the University's definition of a major and a minor may not be the same as that in use in your high school.

D. ACCEPTABLE MAJORS AND MINORS

The required majors and minors as defined may be selected only from the following five academic fields:

1. **English.** In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English while not required for any curriculum, are recommended by all the colleges.

2. **Foreign Language.** Three units in one language constitute a major. Two units in one language constitute a minor. The acceptable foreign languages are German, French, Spanish, Italian, Latin, and Greek. Less than one unit in a language is not acceptable for admission.

3. **Mathematics.** Only courses in algebra, plane geometry and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.)

In the College of Engineering and in the chemistry, chemical engineering, and physics curricula of the College of Liberal Arts and Sciences, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that deficiencies in advanced mathematics be removed during their first year of residence. However, this will probably extend the time required for a degree.

4. **Science.** Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and

geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. Biology may be offered in place of botany or zoology. The two units required for a minor must include at least one unit of physics, chemistry, or biology.

5. **Social Studies.** This field is divided into two areas:

   a. History, e.g., United States, modern, ancient, medieval, etc. Three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.

   b. General Social Studies, e.g., civics, economics, and sociology.

ADMISSION TO THE COLLEGE OF ENGINEERING

The mathematics requirement for admission to full freshman standing in the College of Engineering is as follows: algebra, two units; plane geometry, one unit; trigonometry, one-half unit. The College of Engineering requires a mathematics placement examination of students presenting these credits and will adjust such students' curricula in accordance with the results of the placement examination.

Students who present only one unit in algebra and one unit in geometry, and who meet all other other requirements, may be admitted on the condition that the deficiencies be removed during the first year of residence, and with the understanding they cannot complete the re-

quirements for a degree in the College of Engineering in eight semesters. Students who do not present the three and one-half units in mathematics as specified may be admitted to full standing by passing a proficiency examination at the University which will indicate their preparation is adequate for entrance into analytical geometry.

II. Transfer Students

A. All requirements listed in Item I, page 6. *Exception:* An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the admission requirements listed in Item I may be admitted if he presents at least thirty semester hours of credit in transfer with a 3.0 average ("C") and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathemathics required for these colleges.

B. A person who has attended another college or university of recognized standing is considered for admission to the University of Illinois on presenting (1) a transcript of his college record showing honorable dismissal from the institution from which he comes, and (2) an official statement of his preparatory school work. A person seeking transfer to any undergraduate curriculum with more than forty semester hours of academic work from other colleges or universities must present a scholarship average of at least 3.0 ("C") in terms of the grading system of the University of Illinois, and must have a combined average of at least 3.0 for his last two semesters. Nevertheless, an applicant who is otherwise qualified but whose scholarship average for his last semester is less than 3.0 may, with the approval of the dean concerned, be admitted only on probationary status. A person with more than forty semester hours of academic work with less than a 3.0 average will not be admitted.

A resident of Illinois with forty semester hours or less of academic work whose scholarship average is less than 3.0 but above 2.5 may, with the approval of the dean of the college concerned, be admitted only on probationary status. This does not apply to applicants for the College of Engineering. See Paragraph IVC, page 12.

A non-resident of Illinois with forty semester hours or less of academic work whose scholarship average is less than 3.0 will not be admitted. The above are general University requirements for admission. Certain colleges have established higher admission requirements. An applicant should refer to the section of the catalog which presents admission requirements of the college to which he is applying for admission.

A person on probation at or dropped from another institution for disciplinary reasons may enter the University only on the approval of the dean of the college concerned and with the approval of the University Senate Committee on Discipline.

III. Nonresident Students

Applicants who are not residents of the state of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in Item I, page 6, and further provided that:

A. As high school graduates they ranked scholastically in the upper half of their class on graduation.

B. As transfer students with forty or less semester hours they present a collegiate scholastic average of at least 3.0 ("C") in terms of the University of Illinois grading system.

C. As transfer students with more than forty hours, see Paragraph IIB, page 10.

IV. Special Scholastic Admission Requirements

A. High school graduates who are residents of the state of Illinois and who rank in the fourth (lowest) quarter of their graduating class scholastically, if otherwise qualified, will be admitted on scholastic probation, provided they have complied with the following procedure:

A graduate of an accredited high school who is a resident of Illinois, whose rank in scholarship is in the lowest quarter of his graduating class as determined at the end of the first half of grade twelve, and who meets the requirements as stated below, will be admitted by certificate to probationary status subject to the following procedure.

Such an applicant will be required by the University to take tests as prescribed by the Student Counseling Service and to receive in an interview an interpretation of the test scores and their educational and vocational significance. A reasonable effort will be made to inform the parents of the chances of the applicant's success at the University. If such an applicant then decides to enter the University, he shall make this decision in writing to the Office of Admissions not later than 30 days prior to registration date. Such a student, immediately upon registration, will be placed under the special supervision of the dean of the college or the director of the school in which he is enrolled. He may be required to carry a reduced program of work or a program especially arranged to meet his needs.

The student's rank is to be based on work completed in grades nine, ten, and eleven, and the first half of twelve in the case of four-year high schools, and on work completed in grades ten, and eleven, and the first half of twelve in the case of three-year senior high schools.

B. Applicants for the following special curricula must meet the scholastic minima indicated opposite each curriculum.

CURRICULUM	SCHOLASTIC REQUIREMENTS
1. Premedical, Predental, Preveterinary Medicine, Occupational Therapy	
a. High school graduates	Rank in upper half of graduating class.
b. Transfer students	3.5 collegiate average.
2. Physics Curriculum	
High school graduates	Rank in upper half of graduating class.
3. Preprofessional Curriculum in Nursing	
a. High school graduates	Rank in upper half of graduating class.
b. Transfer students	Collegiate average of 3.0.
4. Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children.	
a. High school graduates	Rank in top quarter of graduating class.
b. Transfer students	3.5 collegiate average.

C. College of Engineering, except curricula in Architecture and Architectural Engineering, transfer students must present at least a "C" average. Transfer students with less than a "C" average will *not* be admitted.

D. Occupational Therapy. Applicants for this program must:

1. Be less than thirty years of age.

2. Pass a special health examination given by the University Health Service.

3. Be recommended by the Director of Occupational Therapy.

Required Subjects for Specific College and Curricula

Colleges	*Subjects Required for Admission*
	In Addition to the General University Admission Requirements, see Paragraph 1A, page 6
COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION	
All Fields (Accountancy, Commerce and Law; Commercial Teaching; Economics of Government and Business, Public Utilities, and Transportation; Economic Theory; Finance; General Economics; Industrial Administration; Insurance; Labor Economics; Management; Marketing: Personnel Management; Secretarial Training; Statistical Economics)	English, 3 units Algebra, 1 unit Geometry, 1 unit
COLLEGE OF ENGINEERING	
All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Industrial, Mechanical, Metallurgical, Mining, Engineering Physics [See also Paragraph IV, Page 11], Sanitary)	English, 3 units Algebra, 2 units Plane Geometry, 1 unit Trigonometry, ½ unit (See paragraph D3, page 8)
Curricula in Architecture Design Option (for B.S. degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering)	English, 3 units Algebra, 1½ units Geometry, 1 unit (See paragraph D3, page 8)
COLLEGE OF LIBERAL ARTS AND SCIENCES	
General Curriculum with majors in Bacteriology, Botany, Economics, English, French, Geography, Geology, German, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology Curricula preparatory to Journalism and Law Teacher Education Curricula (not requiring Chemistry, Physics, or Mathematics) Pre-professional Curriculum in Nursing (See also Paragraph IV, Page 11)	English, 3 units Language, 2 units[1] (See paragraph D2, page 8)
General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology Special Curricula preparatory to Dentistry, Medicine, Veterinary Medicine (See also Paragraph IV, Page 11)	English, 3 units Language, 2 units[1] (See paragraph D2, page 8) Algebra, 1 unit Geometry, 1 unit
Special Curriculum in Chemistry	English, 3 units Language, 2 units[1] (See paragraph D2, page 8) Algebra, 1½ units Plane Geometry, 1 unit
Special Curricula in Chemical Engineering and in Physics (See also Paragraph IV, Page 11)	English, 3 units Language, 2 units[1] (See paragraph D2, page 8) Algebra, 2 units Plane Geometry, 1 unit Trigonometry, ½ unit
Curriculum in Elementary Education	English, 3 units
Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children (See also Paragraph IV, Page 13)	English, 3 units Algebra, 1 unit Plane Geometry, 1 unit Written approval of the Teacher Education Advisor
SCHOOL OF PHYSICAL EDUCATION	
CURRICULUM for Men and Curriculum for Women	English, 3 units Written approval of the Director of Physical Education

[1] Foreign language requirement is waived for students who rank in the upper half of their high school graduating class.

ADMISSION BY EXAMINATION

Applicants who do not meet the requirements for admission listed above may qualify for admission by passing one or more examinations as outlined below. *Exception:* This section does not apply to applicants who are deficient in the scholastic requirements outlined in Items III and IV, pages 11 and 12. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.

I. Entrance Examinations

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category:

A. Graduates of Unaccredited High Schools

1. Applicants who rank in the top 25 per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

2. Applicants who are graduates of unaccredited secondary schools and rank below the top 25 per cent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and specific college admission requirements.

B. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of *at least* four units of work in subjects to be designated by the University.

C. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.

D. Applicants who do not meet University admission requirements with respect to total units of credit, total academic units, major and minors, or subjects required for admission to the college of the applicants' choice may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient.

These entrance examinations will be given three times a year, usually in September, January, and June. Applications to take these examinations must be filed in advance in the Office of Admissions and Records.

II. General Educational Development Tests

Veterans of active duty with the United States Armed Forces or with

the United States Maritime Service and adult non-veterans (non-veterans twenty-one years of age or older) may qualify for admission to the University by passing the United States Armed Forces Institute General Educational Development Tests under the following conditions:

A. Applicants seeking admission to the College of Liberal Arts and Sciences may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. Applicants whose G.E.D. scores are passing but below minimum required for upper-half classification scholastically may qualify if they present credit from accredited sources in two successive years of an acceptable foreign language. Applicants desiring to enter specialized curricula in the College of Liberal Arts and Sciences for which mathematics is required (see page 13) may not qualify for such curricula by G.E.D. tests alone, but must present credit from accredited sources in elementary algebra and plane geometry.

B. Applicants seeking admission to the College of Commerce and Business Administration or the College of Engineering may qualify by passing the G.E.D. tests and presenting credit from accredited sources in the required mathematics.

C. Applicants seeking admission to the School of Physical Education may qualify by passing the G.E.D. tests and securing the approval of the Director of Physical Education.

Tuition and Fees

Semester Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in nine semester hours or more pay tuition of..... $ 75.00

Nonresidents registering in nine semester hours or more pay tuition of 250.00

Students taking eight semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if non-residents.

Hospital and Medical Service Fee. All students registering in six semester hours or more pay as insurance for hospital and medical service a fee of..... 7.00

Laboratory, Library, and Supply Fee. All students registering in nine semester hours or more pay a laboratory, library, and supply fee of 11.00

Students registering for less than nine hours pay $5.50.

Student Activities Fee. All students registering in six semester hours or more pay a student activities fee of..... 6.00

Deposits. Each student must make a deposit of $5 at the time of his first registration. An additional deposit of $10 ($15 in all) is required of students withdrawing military equipment. Chargeable against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory, military, and other equipment, etc. Any balance in deposit will be returned to the student in case he officially withdraws from the University. This refund of deposit will be made after the close of registration for the next regular semester following the student's withdrawal. The $10 military deposit will be returned to the student, upon receipt of the military equipment, at the end of each school year.

Identification Card. Each student, on payment of tuition and fees each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment. A fifty cent fee is charged for the replacement of lost or destroyed identification cards.

Summer Session Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in five semester hours or more pay tuition of.....$37.50

Nonresidents registering in five semester hours or more pay tuition of 125.00

Students taking four semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in four semester hours or more pay as insurance for hospital and medical service a fee of..... 3.50

Laboratory, Library, and Supply Fee. All students registering in five semester hours or more pay a laboratory, library, and supply fee of 5.50

Students taking less than this amount of instruction pay $2.75 for the summer session.

Student Activities Fee. All students registering in four semester hours or more pay a student activities fee of..... 3.00

Refunds of Tuition and Fees

In case a student withdraws from the University[1] during the first ten days of instruction, the total amount of his tuition and fees will be refunded. After ten days and before the middle of the semester, a rebate

[1] Students leaving the University before the end of a semester or session should initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student being dropped for poor scholarship at the end of the semester.

of one-half the tuition and fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of the tuition and fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week. If a student withdraws from one or more courses thereby reducing his study load to eight or less semester hours in the regular semester of four or less hours in the summer session, a pro rata refund of tuition and fees will be made according to the rebate schedule, provided that such a reduction of study load occurs during the full rebate period.

Miscellaneous Fees

Service Charge for Deferred Fees. A service charge of ten per cent of the amount of fees deferred, but not to exceed $3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded *except* that a minimum service charge of $1 is retained by the University in all cases. The general deposit of $5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration. Arrangements for deferred fees are made directly with the cashier.

Change Fee. For every change slip issued at the request of the student, the fee is $1.00

Transcript Fee. Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record.

For each additional transcript the fee is 1.00

Late Registration Fee. Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

Special Examination Fee. For any special examination given in a course which has been failed, the fee is 10.00

Fee to Audit Courses. Persons not connected with the University who attend the classes as listeners pay for each course 10.00

Duplicate Identification Card Fee 0.50

Veterans' Information

The Chicago Undergraduate Division has been approved to offer training under the following veterans educational benefits acts: Public Law 346, the World War II G.I. Bill; Public Law 550, the Korean G.I. Bill; and Public Laws 16 and 894, the Vocational Rehabilitation Acts. Questions concerning benefits under these laws may be referred to the Veterans Section, Office of Admissions and Records.

The University of Illinois has established the Office of Veterans Counselor in the Dean of Men's office, Room 313. As a collateral duty, the Dean of Men gives special attention to the particular problems of veterans.

I. Authorization

To enroll under one of the above benefits at the Chicago Undergraduate Division, an applicant, in addition to applying for admission to this Division, must take the following steps:

A. Determine the course in which he will register and the highest degree toward which he plans to work. If there is any doubt as to the final vocational objective or the course to follow to reach it, some type of educational and vocational counseling should be received before completing application to the Veterans Administration.

B. Make application to the Veterans Administraion, 2030 West Taylor Street, Chicago, for the proper training authorization. A copy of service separation papers must accompany this application. Applications should be filed as early as possible, and not later than the first day of classes.

1. Applications for Public Laws 346, 16, and 894, must show the exact college and curriculum in which the veteran will register.

2. Applications for Public Law 550 need show as the goal only the highest degree desired, e.g., bachelor's degree, master's degree. Titles such as Bachelor of Science, Master of Arts, etc., should not be specified unless the applicant is certain that is the degree awarded in his course.

C. The training Certificate received from the Veterans Administration should be brought to the University on the day of registration for classes. It will not be accepted before that time. Certificates received after the beginning of classes should be turned in at once to the Veterans Section, Office of Admissions and Records, Room 15.

II. Transfers Under the G. I. Bill

Veterans transferring from another school under the G.I. Bill must obtain a notice of interruption from that school (P.L. 346 Form 7-1905e or P.L. 550 Form 7-1995) and submit it to the Veterans Administration when requesting a supplemental training certificate for this University.

A. Applications for transfer under P.L. 346 must reach the Veterans Administration before the veteran interrupts his course at his previous school.

B. Veterans transferring between divisions of the University of Illinois must follow the above procedure for changing schools if they are authorized under P.L. 550. Veterans under P.L. 346 may use the same Certificate if transferring between the Chicago Undergraduate Division and the Urbana campus, provided they do not change their college or curriculum and will register the succeeding semester.

III. Choice of Course

Veterans applying for any educational benefits should be extremely cautious in choosing their courses. Once a particular program is authorized by the Veterans Administration, the veteran may not alter that program without jeopardizing his benefits, particularly if he fails to do satisfactory work in the original course. If assistance in choosing the correct course is desired, the facilities of the University Student Counseling Service are available at all times (see page 21). The Veterans Administration also will provide free counseling for any veteran.

IV. Special Provisions

A. Charges for Tuition and Fees.

1. Public Law 550 requires each veteran to pay the cost of his education out of his monthly allowance. The fees listed on page 15 are payable at the time of registration for classes. The Veterans Administration will mail the first allotment check about six weeks after a veteran enters training.

2. Veterans under Public Law 346 who present a valid Certificate of Eligibility, V.A. Form 7-1953, at the time of registration will be required to pay only the $5 general deposit fee. Veterans not having the Certificate at that time will be required to pay all fees, but will receive a refund when the authorization is presented to the University. This provision also applies to veterans enrolling under Public Law 16 or 894.

B. Attendance.

The University of Illinois is required by the Veterans Administration to submit a monthly attendance report for each veteran enrolled under P.L. 550.

V. Public Laws 16 and 894

Students receiving educational benefits under either of the federal Vocational Rehabilitation Acts should be certain that there is an authorization on file for them at the University by the time they are to register for classes. Early application for training should be filed with the Veterans Administration Training Officer.

VI. Military Scholarships

Any persons who served in the armed forces during World War I or any time between September 16, 1940, and the official termination of the present national emergency and received an honorable discharge may qualify for a four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time of entering service.

No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and Records, Room 15, Window E. The Military Scholarship may not be used during any period when the veteran is receiving financial aid for his education from the federal government.

VII. Credit for Military Service

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service, may be transferred upon the basis of evaluation by the Examiner and Recorder.

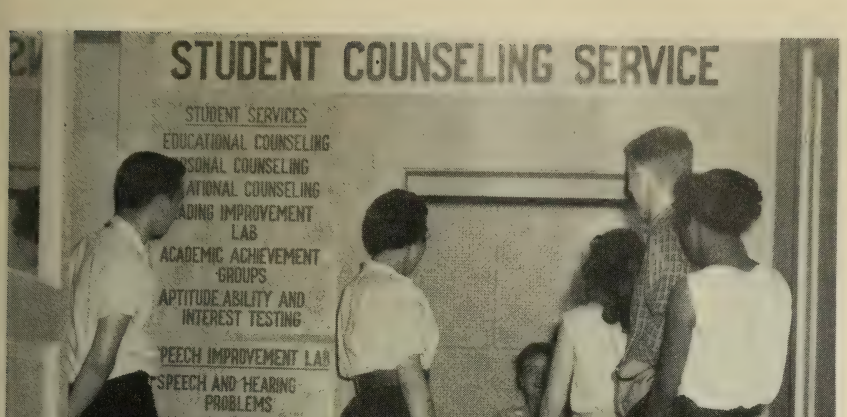
Scholarships

Several types of scholarships are available to undergraduate students in the University of Illinois. Some of these are the County Scholarships awarded on the basis of a competitive examination administered each April by the County Superintendent of Schools, the State Military Scholarships, the General Assembly Scholarships, and, in addition, a number of scholarships awarded by the University Scholarship Committee each spring for the following school year. All the scholarships offered, and the individual requirements, are listed in an information folder available upon request from the Office of Admissions and Records at Navy Pier.

Undergraduate scholarships usually cover tuition charges only. Although some are available only to students in a specific course, the majority may be used in any of the colleges. Students now enrolled may apply for a scholarship for any year; a few scholarships, however, may be awarded only to applicants without college experience. Information regarding scholarships may be obtained from the Office of Admissions and Records, Window E, Room 15, or from the Office of the Dean of Students.

Selective Service Deferment

The Office of Admissions and Records will supply required certificates for students who wish to apply for educational deferments under the regulations of the Selective Service System. Application should be made at Window E, Room 15, at the time the student completes his classification questionnaire. Information concerning educational deferments also is available from this office.



Student Welfare Services

The University's interest in the individual student extends beyond the classroom to include each student's personal adjustment to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling; instruction in healthful living; and extracurricular activities, both social and cultural.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division, with the services of the Student Counseling Service available to prospective students seeking help in planning their college careers. New students have an opportunity to meet the deans and directors at a special meeting at the start of each semester.

Counseling facilities of the Student Counseling Service, offices of the Dean of Students, the Dean of Men, the Dean of Women, and the Health Service are available to students at all times during their college work at the Chicago Undergraduate Division. Students are also urged to discuss specific educational problems with their instructors. Members of the instructional staff hold weekly office hours for conferences with individual students.

Student Counseling Service

The Student Counseling Service helps registered and prospective students to make effective use of their own capacities and the University's resources. It assists students in meeting their individual needs and in coping with a wide variety of problems that occur in the course of college life. Students and prospective students are aided in making decisions about which college or educational program to select in the University, in arriving at suitable vocational choices, and in analyzing and relieving difficulties in studying. Counselors also aid students in removing stumbling-blocks to overall personal growth and success, and in realizing their capacity for fuller and more rapid development.

A. Individual Counseling: Students who feel they have needs or problems, and those who for any reason find they are not fully profiting from college life, are invited to talk over their situation with a professional counselor. Interview schedules are flexible, and students usually can arrange for as much counseling time as they need. Professional aid can help students to improve their own problem-solving ability, to do more effective planning, to lead fuller lives academically and socially, and to derive maximum benefit from their college careers.

B. Group Counseling: Group counseling sessions are available at a number of times throughout the year, including the summer. This program is intended for students who have found problems in doing their college work, as well as for those who are making good progress but feel a need to increase their personal efficiency in and out of college. Groups are kept small and usually meet twice a week. Group work is geared in with individual counseling where appropriate. Some of the groups deal with a variety of common student problems. Other groups give more specialized attention to such problems as: reading for different purposes, improving powers of concentration, aiding the ability to remember, improving preparation for course examinations, taking more usable notes, organizing one's time more efficiently, and learning a variety of methods for studying different courses and course-materials.

A personal interview before admission to this program helps one in selecting a group appropriate to individual needs.

C. Test Services: Tests of special aptitudes, abilities, vocational and academic interests, and measures of personal-social adjustment, may be taken by individual arrangement with a counselor. These counseling aids are frequently valuable in self-evaluation and in making plans appropriate to one's abilities, aptitudes and life-situation.

The Counseling Service also gives a comprehensive battery of guidance tests to prospective and entering freshman students, and each person may review his test results with a counselor to aid self-evaluation and individual planning. Test scores show relationships between one's own high and low interests and aptitudes, and they also give a basis for comparing oneself with other college students. In addition, many other tests and interest inventories are available to all students at the Chicago Undergraduate Division.

D. Occupational Information Services: In conjunction with the Library Department, the Student Counseling Service maintains one of the most comprehensive and up-to-date files of job information available in the State of Illinois. Facts and figures about required qualifications and preparation, pay scales, demand for employees, chances for advancement, and other advantages and disadvantages of thousands of occupations are kept easily accessible to students.

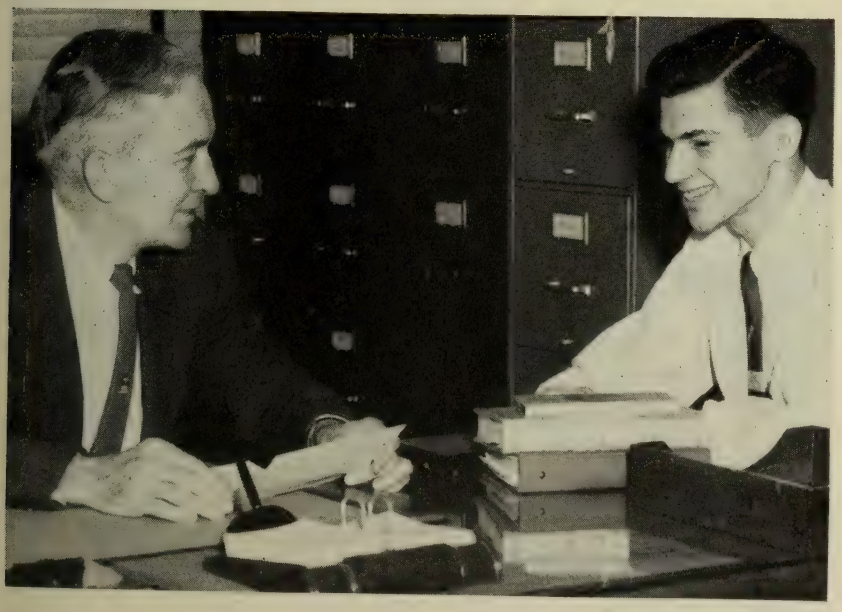
E. Location: The Student Counseling Service occupies a suite of rooms on the third floor, near the east end of the building. It is near a student lounge on the same floor, and adjacent to the offices of the Dean of Students and the Health Service.

Receptionists are in attendance to aid students in making and meeting appointments. Additional information may be obtained at the Reception Desk, or by calling Ext. 115 at WHitehall 4-3800.

The Speech Clinic

The services of the Speech Clinic are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who have foreign accents, hearing deficiencies, or vocal, rhythmic, or articulatory problems are aided by the clinic. The clinic also assists students with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical, teaching, or speech careers are aided in meeting professional speech requirements.

There are no fees for these services, but some students may be asked to purchase a blank recording disk (about eighty-five cents) in order that permanent recordings of their voices may be made. The Speech Clinic is located in the Student Counseling Service area on the third floor. It is advisable to make appointments in advance.



Dean of Students

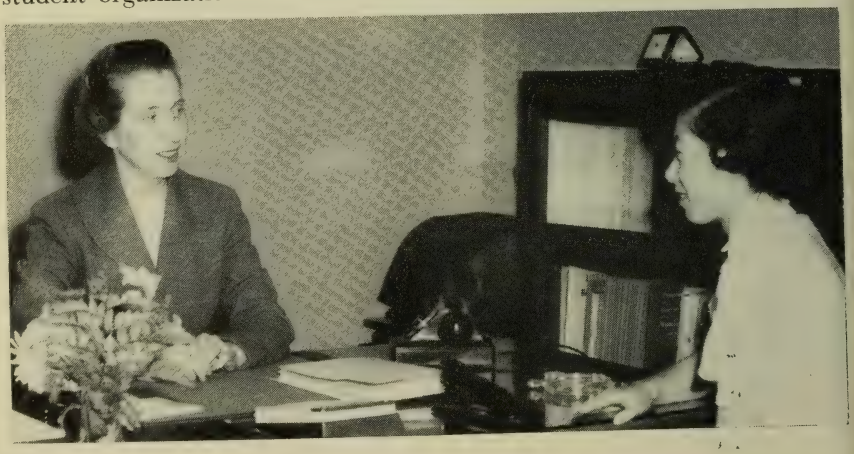
The Dean of Students is in charge of most matters of student welfare and extra-curricular activities. The principal assistants in the Office of the Dean of Students are the Dean of Men, the Dean of Women, and the Assistant to the Dean of Men. These are the general advisers to whom students may go for assistance and advice. The offices of these advisers are open to any student, throughout the day, and inquiries from parents and guardians are welcomed. Details of the services available in the Office of the Dean of Students are given in the following sections.

In addition, the Dean of Students is the administrative officer responsible for all extra-curricular activities and is charged with the co-ordination of the extra-curricular programs of the recognized student clubs and organizations. He is charged with the responsibility for handling matters pertaining to the Student Hospital and Medical Insurance Plan and the voluntary plan for the staff. He is also adviser to foreign students and veterans counselor at the Chicago Undergraduate Division.

In connection with the responsibility for student welfare, the Dean of Students is an ex-officio member of the Disciplinary Committee.

DEAN OF MEN

The Office of the Dean of Men is organized for the primary purpose of aiding men students. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to bring to him. He is available for individual conferences with students daily. The Dean of Men takes an active part in student extra-curricular affairs through his membership on the Committee on Student Affairs, through his chairmanship of the Administrative Committee on Finance and Audit for Student Organizations, and his duities as secretary of the Undergraduate Division Organizations Fund. He also serves as adviser to Phi Eta Sigma, national scholastic honorary for first-year men students and as vice-president for the Parents Association. All official University requisitions for student organizations, events, and affairs are initiated by the Dean of Men upon receipt of a written request from the student group concerned. He also serves as financial adviser to student organizations.



DEAN OF WOMEN

The Office of the Dean of Women is the clearing place for the problems of women students. Students are urged to come with questions that inevitably arise—social, personal, academic, or financial.

In addition to the friendly, sympathetic counseling of women students, the Dean of Women serves as the adviser to women's organizations at

the Chicago Undergraduate Division; as sponsor of Alpha Lambda Delta, national scholastic honorary for freshman women, Activities Honorary Society, and University Dance Committee.

All student social events are co-ordinated and unified through her office in her capacity as chairman of the Administrative Committee on Social Events, Calendar, and Recreation. She offers helpful assistance to student groups in organizing dances, entertainments, special events, and other all-University functions.

LOAN FUNDS

Loan funds have been established for the benefit of worthy students of the University who are in need of financial aid. They are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. Most of these funds have special qualications which must be met by applicants.

Detailed information regarding loan funds and application blanks may be obtained from the Office of the Dean of Students, Room 313.

STUDENT EMPLOYMENT

For students who find it necessary to earn a portion of their expenses, the Student Employment Division in the Office of the Dean of Students provides information and assistance to needy students desiring part-time jobs, both in University offices and in industry and business in the Chicago area. Applications for part-time jobs should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedules, at the time of registration, so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity rather than choice.

HOSPITAL AND MEDICAL SERVICE

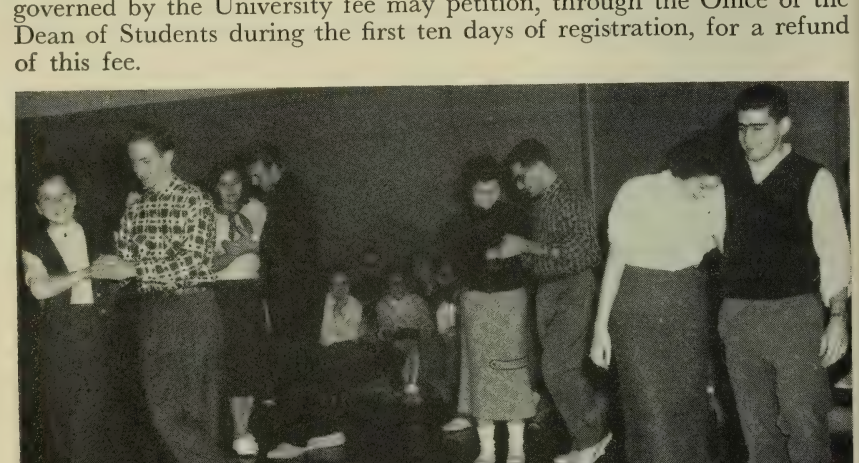
A Hospital and Medical Service fee of seven dollars is charged each student at the time of registration to provide limited care in an approved hospital for a basic period of thirty days in any semester. In addition, specific benefits are provided to apply toward the physician's or surgeon's fees during the period of hospitalization, and certain stated benefits are allowed for ambulance expense when the need therefor is certified by the Director of the Health Service, for consultant fees, for outpatient treatment, and for miscellaneous hospital expense such as laboratory tests, anesthetic and administration thereof, use of operating room, medicines, drugs, dressings, blood transfusions and administration thereof, and X-rays. A catastrophy clause takes effect after the student has paid an additional amount of hospital and doctor bills equal to fifty percent of the basic benefits of the policy. Students are urged to read their certificates carefully to determine the exact benefits that apply to specific situations. The Hospital and Medical Service plan is under the supervision of the Dean of Students. If the student did not receive a certificate at the time of registration, or if there are questions pertaining

to this insurance, he should request the Dean of Students, University of Illinois, Navy Pier, Chicago 11, Illinois, to supply the necessary information.

The dependents of students may be covered under this same insurance plan by the payment of an additional fee. In order to enroll dependents, application must be made and the necessary fee for such coverage paid to the University cashier within three weeks of the effective date of the insurance of the student member.

The hospital and medical service insurance fee mentioned above is totally expended for sickness and accident insurance for each individual student and is not utilized for the maintenance of the University Health Service.

Note: A student who presents evidence of participation in any other group insurance system providing equal or greater benefits than those governed by the University fee may petition, through the Office of the Dean of Students during the first ten days of registration, for a refund of this fee.



Extra-curricular Activities

Student extra-curricular activities are recognized as an important part of the student's life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. Many student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body. These student groups may meet during the scheduled activity hour on Tuesday of each week and on the second and fourth Thursdays of each month. All questions pertaining to extra-curricular activities should be directed to the Dean of Students, Room 313.

The Committee on Student Affairs is an official body, made up of students, faculty, and administrative personnel, appointed to assist the Dean of Students in the development and supervision of student extra-curricular and student government activities.

The Student government organization, the Student Congress, is composed of four officers and twenty representatives. The officers and ten of the representatives are elected by a vote of the entire student body at a general election each year, but the other ten representatives are elected by student organizations to provide one representative for each of ten groups of recognized student activities. Officers of the Congress serve on the Committee on Student Affairs.

Joint student-faculty administrative committees assist in the supervision of student organizations. These committees, in each case, are composed of a faculty representative of the Committee on Student Affairs and two members of the Student Congress. The administrative committees review all matters referred to them, and make recommendations to the Committee on Student Affairs and the Student Congress for appropriate action. Students are provided an opportunity for experience in journalism through the weekly student newspaper, the *Pier Illini,* written and edited entirely by students. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph,* the University of Illinois engineering periodical.

Supplementing classroom work, three language clubs, The Future Teachers of America, Pershing Rifles and the Cadet Association, the Activities Honorary and the Forensics Honorary, and the Commerce, Vets Illini, International Relations, Amateur Radio, Chess, Geology, Biology, Collegians, Humanities, and the UIC Flying clubs provide cultural programs for the students. Engineering, architecture, chemistry, pre-law, and pre-medical students may take part in the activities of their respective professional societies, several of which are affiliated with national professional organizations.

Students interested in music and drama may seek membership in the University Band, the University Choir, the Music Appreciation Club, or the Pier Playhouse. Extra-curricular organizations in athletics and physical education include the Varsity Lettermen's Club, Orchesis, the modern dance organizations, the Co-Recreational Association, the Women's Athletic Association, and the Physical Education Majors club.

All-University dances are sponsored by the University dance committee. Honorary scholastic societies include Alpha Lambda Delta for freshman women and Phi Eta Sigma for freshman men.

Debating

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating, discussion, and individual events. All students, including those without previous experience, may take part in the forensic activities.

The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to

mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the city have included colleges and universities from Florida, Texas, Iowa, Michigan, Missouri, Ohio, and New York. Speakers from the Chicago Undergraduate Division also attend tournaments in Illinois and nearby states, where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition. It has won the Chicago Area, the state, and the regional championships, and in 1952, 1953, 1954, and 1956 represented the East Central States area in the national championship tournament at West Point, New York.

Problems of national and international interest are the topics for public discussion and panel presentations, both on and off campus. These programs, usually followed by audience participation, are sometimes joint presentations with other colleges and universities. Chicago Undergraduate Division speakers are often featured on adult forum programs.

The Chicago Undergraduate Division serves as national headquarters for the National Contest in Public Discussion. It holds membership in the Illinois Intercollegiate Debate League, the Illinois Intercollegiate Oratorical Association, the Chicago Area Debate League, and Pi Kappa Delta. The last of these is a national honorary with 31,000 members and chapters in approximately 270 colleges and universities.

The Chicago Undergraduate Division has been host for some noteworthy forensic events. The Cambridge university debate team met two UIC speakers before an audience of 2,200 in the fall of 1955, and in the spring of 1957 the annual tournament of the Illinois Intercollegiate Debate League was held on this campus. The annual Freshman-Sophomore tournament in December has attracted as many as thirty-nine visiting colleges from eight states, and the annual tournament for high schools in January includes leading teams located within seventy-five miles of Chicago.

Athletics

The Chicago Undergraduate Division participates in eleven varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, soccer, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen in good standing are allowed to participate in varsity sports.

A special feature is the extensive intramural program in which students can elect to take part in wrestling, badminton, table-tennis, volleyball, basketball, gymnastics, handball, weight-lifting, tennis, track, and softball. The intramural and intercollegiate programs are under the supervision of an athletic committee of student and faculty representatives. Both programs are financed through funds from student activities fees. The Chicago Undergraduate Division Gymnasium, adjacent to the entrance of the main building, is the center of the intramural and physical

education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the gymnasium which has floor space for eight full-size basketball courts.

A staff of sixteen coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

University Services

University Library

The Library offers an opportunity for students and faculty to have accessible all the books, pamphlets, periodicals, maps, phonograph rec-

ords, and other materials required in their classroom work and for recreational and research activities. At present the book collection totals over 75,000 carefully chosen volumes. The Library is receiving over 700 magazines and journals and the most important general indexing service publications. Back files for many of these titles have been bound and are available for permanent reference use on open shelves.

An excellent collection of 6,500 general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories has been assembled. Extensive collections of pamphlets, vocational guidance materials, and college catalogs are provided. A comprehensive card catalog and modern microprint and microfilm reading machines are also available. The Library also has the catalogs of the U. S. Library of Congress, the Bibliotheque Nationale of France, and the British Museum Library.

While no attempt is made to duplicate scholarly research collections and facilities in the city, every means is used to encourage greater use of library materials. Emphasis is placed on individual, personal service to faculty and students through general reference and readers' advisory assistance plus the library staff liaison with the teaching program and student activities. Formal and informal instruction in the use of library resources and facilities is offered to all undergraduates. Displays of new and outstanding books of special and unusual interest are maintained in the reading rooms and on the bulletin boards in the lounges and corridors.

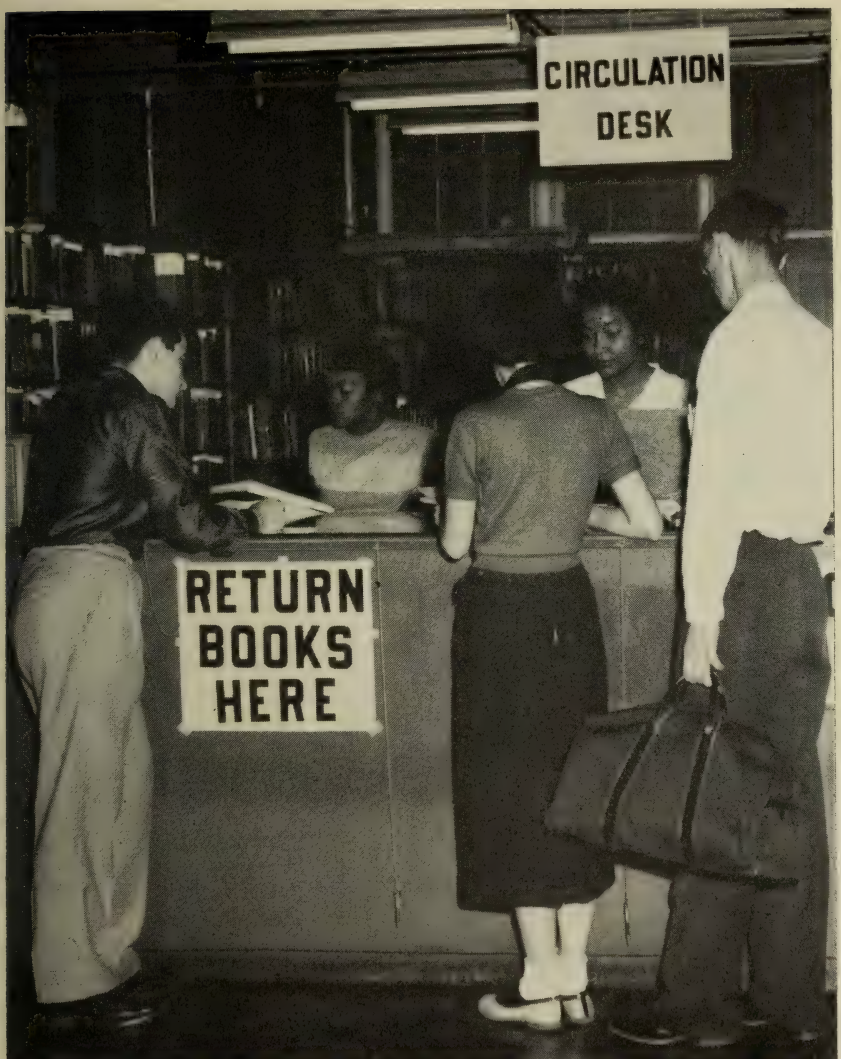
The Library includes three service areas. (1) The open-shelf Main Reading Room is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities in addition to well-lighted study space for several hundred readers. It also contains the non-musical phonograph record and tape collection which includes plays, poetry reading, speeches and language lessons. (2) Located near the bus terminal is the Reserve Book Station which makes assigned reading materials conveniently available. (3) The Fine Arts Reading Room is found at the far east end of the Pier on the second level. It contains the collection of art, architecture, and music books and offers special facilities for listening to musical recordings. It also has a lending service for art reproductions.

While classes are in session the Main Reading Room is open Monday through Friday from 8 a.m. to 4:30 p.m. The Reserve Book Station and the Fine Arts Reading Room are open from 8:30 a.m. to 4:30 p.m.

University Bookstore

The University Bookstore is operated by the University to provide faculty approved texts and supplies as required by the various courses at the Chicago Undergraduate Division.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8:30 a.m. to 6 p.m.



Food Service

The University operates non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the building. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the building, adjacent to the reception lounge. In addition, a dining room at the east end of the building offers cafeteria-style service to members of the faculty and staff.

Health Service

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff of the University Health Service, are required of all students prior to the time of their first registration and each year thereafter. Chest X-rays are required as part of the physical examination. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students without charge.

The staff of five physicians instructs classes in hygiene and sanitation. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations.

It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5 p.m. daily and during vacation periods.

Courses Required of All Students

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be started in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Men and women entering the University with less than sixty semester hours of credit are required to secure four semesters of credit in physical education including the amount transferred. Those entering with sixty semester hours or more are exempt from the requirement in physical education.

2. Two semesters of rhetoric (Rhetoric 101 and 102) are required. All students entering the University as freshmen direct from secondary schools are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

The Grading System

The following grades are given in the University of Illinois: A — Excellent, B — Good, C — Fair, D — Poor (lowest passing grade), E — Failure.

The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean of his college, and on payment of a fee of $10, or he may take courses in sequence, with the approval of the department.

Other symbols in use are:

W — Withdrawn from the course without penalty.

Ex — Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee, but becomes a failure if not removed during the first semester that the student completes in residence following the giving of the grade of "Ex.")

Rep — Replaces grade of "Ex" when course in which "Ex" grade was received is repeated by the student. A student may earn credit in a course in which he receives an "Ab" grade by taking a special examination (fee $10) during the next semester in which he is in residence, but not to be taken within ten days of the final examination period.

Inc — The grade of "Incomplete" is no longer authorized except in the required work in physical education. Except in this department instructors are required to assign a definite grade representing both the quality and the quantity of the work accomplished.

Grade-Point Average

In computing the grade-point average, weighted values are given to the grades as follows: A = 5 grade points; B = 4; C = 3; D = 2; E = 1; Ab = 1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn three hours of A, six of B, three of C, two of D, and four of E, the computation of your grade-point average is as follows:

Grade	Hours	Weight	Grade Points	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	
E	4	1	4	$\frac{56}{18} = 3.111$
	18		56	

Your grade-point average is 3.111.

College of Commerce and Business Administration

Through knowledge of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for freshmen and sophomores. Though the factual contents of many of the courses are directly useful in specific vocations, students should expect to serve an apprenticeship in the fields

they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible to avoid the narrowing effects of early specialization.

The courses required and available in the first two years in this college are primarily organized to serve as a foundation for building the study in a field of concentration in the junior and senior years.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, the College of Law, or the School of Journalism and Communications. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Another group of students has not been forgotten. This group comprises those who will not be able to attend school for more than one or two years. The program is so arranged that the maximum benefit of basic business knowledge can be obtained in that more limited period.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must:

1. Fulfill general University requirements as to registration, residence, scholarship, and fees.

2. Have a total of 130 credit hours of which not less than sixty credit hours must be in Accountancy, Business Law, Economics, Management, and Marketing. Secretarial Training courses may be included in the fields of Commercial Teaching and Secretarial Training. In Commercial Teaching and Commerce and Law only forty-five such hours are required, while in Industrial Administration the number of such hours is fifty-four, and in Personnel Management, fifty hours.

3. Complete courses included in University requirements, College General Education requirements, and College General Business requirements. (See pages 36 and 37.)

4. Complete the requirements for one of the fields of concentration. (See page 37.)

5. Have a minimum average of 3.0 for all courses counted toward graduation.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make

a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include business law, management, marketing, anthropology, history, philosophy, political science, psychology, and sociology, as well as additional courses in geography, mathematics, science, literature, foreign language, art, architecture, or music. Any advice desired on these electives may be obtained at the office of the dean or from the adviser at the time of registration.

Commerce and Law

Students interested in obtaining a legal education may take their pre-legal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business or corporation law. The general requirements are the same as those for all Commerce students shown on page 36. The third year includes requirements of special value to the pre-law student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 100 hours in the College of Commerce and Business Administration and thirty hours in the College of Law, including all required courses and all other graduation requirements, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. The approved program for this field for the first two years is shown on page 37.

Prejournalism

Students desiring to enter the School of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The general program for this purpose is the same as that shown below.

Requirements for All Commerce Students

(Except Commercial Teaching)

1. University Requirements. All available at the Chicago Undergraduate Division.	CREDIT HOURS	NORMAL SEMESTER
Military[1]		
Physical Education	4	1, 2, 3, 4
Rhetoric 100[2], 101, 102	4	1, 2, 3, 4
Total	6	1, 2, (3)
	14	

II. College General Education Requirements. All available at the Chicago Undergraduate Division		
Economics 100—Introduction to Business (strongly recommended)	(3)[2]	2
Economics 136—Economic History of the United States, or Economics 138—Introduction to the Economic History of Modern Europe, or Geography 105—Introductory Economic Geography	0 to 3[3]	1
Literature or Language[4]	6	1, 2, 3 or 4
Mathematics 103—Introduction to College Algebra and Mathematics 112—College Algebra[5]	0 to 6	1, 2
Rhetoric 151—Business Letter Writing	3	3 or 4
Science or Advanced Mathematics[6]	4	1 or 2
Social Science (Anthropology, History, Philosophy, Political Science, Phychology, or Sociology) a minimum of six hours; a minimum of three hours of advanced economics	9 to 12	3 or 4
Speech 101—Principles of Effective Speaking	3	1, 2, 3 or 4
Additional hours in Language, Literature, Advanced Mathematics, Science, Social Science, Art, Architecture, Music, and Geography to bring the total of this group, excluding Economics 100, to 36 credit hours	0 to 11	
Total	36	
III. College General Business Education Requirements. All except those shown with an asterisk are available at the Chicago Undergraduate Division.		
Accountancy 101—Principles of Accounting	3	1
Accountancy 105—Accounting Procedure	3	2
Accountancy 106—Elementary Cost Accounting (recommended), or Accountancy 108—Intermediate Accounting	3	3
Business Law 100—Basic Principles of Business Law	3	4
Economics 102, 103—Principles of Economics	6	3, 4
Economics 170—Elements of Statistics	3	4
Economics 250—Money, Credit, and Banking*	3	
Economics 254—Business Finance*	3	
Management 101—Industrial Organization and Management	3	4
Marketing 101—Principles of Marketing	3	4
Commerce electives*	6	
Total	39	

[1] Not required if first sixty credit hours are taken at the Chicago Undergraduate Division.

[2] Not required unless placement examination so indicates.

[3] For freshmen only. Students with thirty credit hours or more should not take this course.

[4] If literature is elected, six hours of American or English literature will satisfy the minimum requirement. If language is elected, it must be a modern foreign language and the equivalent of four semesters when pursued in college must be taken to satisfy requirements.

[5] The placement examination will determine the mathematics course the student will take. Each student must have Mathematics 112 to complete this requirement, unless the placement test indicates that he already has knowledge equivalent to this. The only students exempted from the placement test are those who have college credit in college algebra.

[6] If science is elected it may be any laboratory science (geography is not included here). If mathematics is elected it may be any course in advance of college algebra, trigonometry included.

IV. Field of Concentration Requirements and Free Electives.
Sufficient credit hours must be taken here to make a grand total of 130 credit hours. None of the required courses in the fields of concentration are available at the Chicago Undergraduate Division.

Fields of Concentration:

- Accountancy
- Commerce and Law
- Commercial Teaching (special program)
- Economics of Government and Business, Public Utilities, and Transportation
- Economic Theory
- Finance
- General Economics (eight sub-fields)
- Industrial Administration
- Insurance (two sub-fields)
- Labor Economics
- Management
- Marketing (nine sub-fields)

Personnel Management (three sub-fields)
Secretarial Training
Statistical Economics (six sub-fields)
Urban Land Economics

Further information about any of these fields of concentration or any other academic questions arising in connection with any of the above material should be directed to the Associate Dean in charge of the College of Commerce and Business Administration, Room 27.

Curriculum Preparatory to Teaching Commercial Subjects

FIRST YEAR FIRST SEMESTER 17 HOURS	
Accy. 101—Principles of Accounting	3
Biology 101—Fundamentals of Biology	4
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Math. 112—College Algebra[1]	3
Rhet. 101—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR FIRST SEMESTER 17 HOURS	
Accy. 106—Elementary Cost Accounting	3
Econ. 102—Principles of Economics	3
Geog. 105—Introduction to Economic Geography	3
Rhet. 151—Business Letter Writing	3
Speech 101—Principles of Effective Speaking	3
Physical Education	1

SECOND SEMESTER 16 HOURS	
Accy. 105—Accounting Procedure	3
Biology (Botany or Zoology)	4
Ed. 101—The Nature of the Teaching Profession	2
Econ. 136—American Economic History or Econ. 138—European Economic History	3
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND SEMESTER 18 HOURS	
Econ. 103—Principles of Economics	3
Hist. 152—History of the United States	3
Mktg. 101—Principles of Marketing	3
Psych. 100—Introduction to Psychology	4
Sociol. 100—Principles of Sociology	3
Physical Education	1

[1] May require adjustment. See footnote 5 on preceding page.
[2] If there is room for any electives, they could include Business Law 100; Political Science 150 as specific requirements; Accountancy 108, American or English Literature, or Philosophy 105 as option electives; Management 101 as a free elective. Whichever ones are chosen would affect the junior or senior program in that respect.

College of Engineering

To prepare men for professional work in engineering and architecture and for responsible positions of a technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and engineering sciences and their applications to the design, construction, and operation of industrial plants, buildings and homes, and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems similar to those of practicing architects and engineers. The curricula in architecture in the College of Engineering are offered under the Department of Architecture and Art. A discussion of the curricula in architecture is presented following the curricula in engineering.

In addition to the fundamental and technological courses in each curriculum, cultural courses are required, such as history, economics, and rhetoric. Other courses are elective and are presented to provide the student with an awareness of the urgent problems of society and to develop a deeper appreciation of the cultural achievements of man. These socio-humanistic courses, recognized as fundamental background for the achievement of a full life are drawn from liberal arts, sciences, economics, sociology, fine and applied arts, and other sources.

At the Chicago Undergraduate Division the first two years are offered in the fields of aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, industrial engineering, mechanical engineering, metallurgical engineering and mining engineering. Those few required courses which are not available here are properly noted.

Instruction is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois to complete the courses leading to the degree.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work consisting of thirty to thirty-six semester hours, acceptable to the faculty of this college, providing plans have been made toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Nontechnical electives include all courses in the College of Liberal Arts and Sciences except those in mathematics, chemistry, and chemical engineering; all courses in the College of Commerce and Business Administration; Architecture 113; Art 111, 112, and 115. The student may petition to receive credit for other courses which conform to the objec-

tives of what are known as the social-humanistic studies. It is expected that the student will consult with his departmental adviser when selecting his nontechnical electives.

Each curriculum offers some elective opportunities, which may be specified as technical, non-technical, social science or humanities. These elective courses must be chosen from department approved lists. Social Science and Humanities includes courses usually drawn from the following fields: Art, Classics, Division of General Studies, Economics, English (not including Rhetoric), History, Humanities, Philosophy, Political Science, Psychology and Sociology. Each curriculum requires a minimum of 12 hours of courses in these fields. One or more of these courses may be specified in the printed curriculum.

Transfer students may substitute survey courses of nontechnical areas for their nontechnical electives, although circumstances may dictate some reduction in credit.

Departmental electives and technical options are restricted to courses of a technical character as listed under this classification by each department. Options are groups of related courses in a special field of subject matter.

Most of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by curriculum options, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

The entrance requirements to the College of Engineering in mathematics are three and one-half units: algebra, two units; plane geometry, one unit; and trigonometry, one-half unit. It is recommended that students also take solid geometry in high school. Students continue to be admitted on the basis of a minimum of one unit each in algebra and plane geometry, but they are required to make up the deficiencies during their first year in college. This delays their graduation one semester unless steps are taken early to offset the deficiencies. It is recommended that such students attend a summer session preceding entrance into college or immediately following their first year, thus eliminating the extra semester at the end. A mathematics placement examination is given to all students presenting three and one-half or four units of high school mathematics. A passing grade on this examination is required for a student to enroll in analytic geometry the first semester. Students having college credit for algebra and trigonometry are not required to take this examination.

Freshman students who have had a year of chemistry in high school and rank in the upper one-fourth of their graduating classes are allowed to omit Chemistry 102 and 104 and substitute Chemistry 109, a five-hour course, and two additional hours of electives.

Transfer students should follow the curriculum listed in the Undergraduate Study bulletin for the year in which they enter the University of Illinois.

Common Program for Freshmen

FIRST YEAR FIRST SEMESTER — 15 OR 16 HOURS

Chem. 102 or 103[1]—General Chemistry	3 or 4
G.E. 100—Engineering Lectures	0
G.E. 101—Elements of Drawing	3
Math. 123—Analytic Geometry[2]	5
Rhet. 101—Rhetoric and Composition	3
Physical Education	1

SECOND SEMESTER — 18 HOURS

Chem. 104—Chemistry of Metallic Elements[1]	4
G.E. 102—Engineering Geometry	3
Math. 133—Calculus	3
Physics 106—Mechanics	4
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

Curriculum in Aeronautical Engineering

FIRST YEAR

Common Program for Freshmen (above).

SECOND YEAR FIRST SEMESTER — 17 HOURS

Math. 143—Calculus	5
M.E. 182—Manufacturing Processes	3
Physics 108—General Physics (Heat, Sound, Light, Modern Physics)	4
Modern History or Political Science[3]	4
Physical Education	1

SECOND SEMESTER — 17 HOURS

Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics (Electricity, Magnetism, Modern Physics)	4
T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Modern History or Political Science[3]	4
Physical Education	1

[1] Students who entered in September, 1953, and thereafter may use only three hours of Chemistry 105 towards degree in engineering. See note in paragraph on Common Program for Freshmen about substitution of Chem. 109 for Chem. 102 or 104.

[2] Math. 112 and 114 for those entering with two or three units of high school mathematics. This also applies to those who do not pass the mathematics placement examination.

[3] Students should consult the departmental list of approved courses.

Curriculum in Ceramic Engineering

FIRST YEAR

Common Program for Freshmen (above).

SECOND YEAR FIRST SEMESTER — 18 HOURS

Cer. E. 101—Introduction to Ceramic Engineering[1]	3
Chem. 123—Quantitative Analysis[2]	5
Math. 143—Calculus	5
Physics 107—Electricity and Magnetism, Modern Physics	4
Physical Education	1

SECOND SEMESTER — 18 HOURS

Cer. E. 102—Ceramic Processes and Equipment[1]	3
Geol. 130—Mineralogy for Engineers[1]	3
Physics 108—Heat, Sound, Light	4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Nontechnical Electives[3]	3
Physical Education	1

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. See page 50 and 51.

Curriculum in Civil Engineering

FIRST YEAR

Common Program for Freshmen (page 40).

SECOND YEAR FIRST SEMESTER 17 HOURS

C.E. 105—Plane Surveying....2
C.E. 160—Building Construction....3
G.E. 111—Advanced Drafting for Civil Engineers....2
Math. 143—Calculus....5
Physics 107—Electricity and Magnetism, Modern Physics....4
Physical Education....1

SUMMER

C.E. 207—Summer Surveying Camp....5

SECOND SEMESTER 16 OR 17 HOURS

C.E. 106—Surveying....3
Geol. 150—Engineering Geology....3
Physics 108—Heat, Sound, Light....4
T.A.M. 150 or 151—Analytical Mechanics (Statics)....2 or 3
Econ. 102, 108 or 136....3
Physical Education....1

Curriculum in Electrical Engineering

FIRST YEAR

Common Program for Freshmen (page 40).

SECOND YEAR FIRST SEMESTER 16 HOURS

Econ. 108—Elements of Economics....3
Math. 143—Calculus....5
Physics 107—Electricity and Magnetism, Modern Physics....4
Speech 101—Principles of Effective Speaking....3
Physical Education....1

SECOND SEMESTER 16 HOURS

Math. 345—Differential Equations and Orthogonal Functions....3
E.E. 126—Electric Circuits and Fields....4
Physics 108—Heat, Sound, Light....4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)....4
Physical Education....1

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

Common Program for Freshmen (page 40).

(Substitution of Chem. 106 for Chem. 104 is advised).

SECOND YEAR FIRST SEMESTER 17 HOURS

German or Nontechnical Electives[1]....4
Math. 143—Calculus....5
Physics 107—Electricity and Magnetism, Modern Physics....4
Social Sciences or Humanities[1]....3
Physical Education....1

SECOND SEMESTER 16 HOURS

German or Nontechnical Electives[1]....4
Math. 343—Advanced Calculus....3
Physics 108—Heat, Sound, Light....4
Physics 341—Electricity and Magnetism....4
Physical Education....1

---

[1] Not offered at Chicago Undergraduate Division.
[2] Offered first semester only.
[3] Students should consult departmental list of approved courses.

Curriculum in General Engineering

This curriculum provides a fundamental engineering training with moderate emphasis on design and a fixed requirement of fifteen hours in economics, corporation finance, engineering law, and labor problems. Specialization in any field of the student's choice is permitted in the liberal provisions for elective studies, as well as an option by means of which he may elect either structural or machine design. The curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to ally themselves with industrial and commercial development in the fields of management, operation, and construction—preparation for which is founded on scientific and engineering facts and disciplines, supplemented by economic and social orientations. A sales engineering option can be readily planned within the elective framework of the curriculum.

FIRST YEAR

Common Program for Freshmen (page 40).

SECOND YEAR FIRST SEMESTER 16 HOURS	
Econ. 108—Elements of Economics	3
Math. 143—Calculus	5
M.E. 182—Manufacturing Processes	3
Physics 107—General Physics (Electricity, Magnetism, Modern Physics)	4
Physical Education	1

SECOND SEMESTER 17 OR 18 HOURS	
C.E. 105—General Surveying	2
Physics 108—General Physics (Heat, Sound, Light, Modern Physics)	4
Math. 263—Statistics, or Math. 345—Differential Equations	3
Speech 101—Principles of Effective Speaking	3
T.A.M. 150 or 151—Statics	2 or 3
Non Technical Electives[1]	2
Physical Education	1

[1] Students should consult the departmental list of approved electives.

Curriculum in Industrial Engineering

FIRST YEAR

Common Program for Freshmen (page 40).

SECOND YEAR FIRST SEMESTER 18 HOURS	
Econ. 108—Elements of Economics	3
Math. 143—Calculus	5
M.E. 183—Materials Casting, or M.E. 184—Metal Processing	3
Physics 108—Electricity and Magnetism, Modern Physics	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

SECOND SEMESTER 18 HOURS	
G.E. 112—Advanced Technology for Mechanical Engineers	2
M.E. 184—Metal Processing, or M.E. 183—Materials Casting	3
Physics 107—Heat, Sound, Light	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 221—Resistance of Materials	3
Nontechnical Electives	2
Physical Education	1

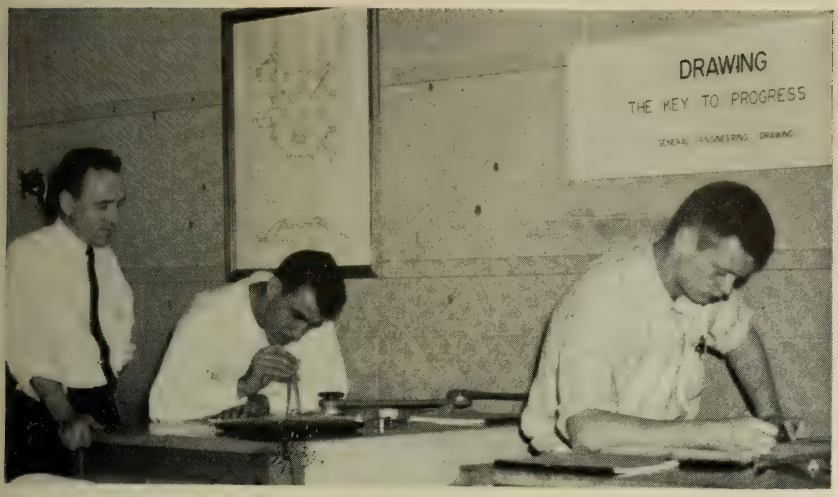
Curriculum in Mechanical Engineering

FIRST YEAR

Common Program for Freshmen (page 40).

SECOND YEAR FIRST SEMESTER 18 HOURS	
Econ. 108—Elements of Economics	3
Math. 143—Calculus	5
M.E. 183—Materials Casting, or M.E. 184—Metal Processing	3
Physics 108—Electricity and Magnetism, Modern Physics	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

SECOND SEMESTER 16 HOURS	
G.E. 112 Advanced Technology for Mechanical Engineers	2
M.E. 184—Metal Processing, or M.E. 183—Materials Casting	3
Physics 107—Heat, Sound, Light	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
Speech 101—Principles of Effective Speaking	3
Nontechnical Electives	2
Physical Education	1



Curriculum in Metallurgical Engineering

FIRST YEAR

Common Program for Freshmen (page 40).

SECOND YEAR FIRST SEMESTER	18 HOURS
Chem. 123—Quantitative Analysis[3]	5
Math. 143—Calculus	5
Physics 107—Electricity and Magnetism, Modern Physics	4
Social Sciences or Humanities[1]	3
Physical Education	1

SECOND SEMESTER	15 HOURS
Cer. E. 221—Pyrometry[2]	2
Met. E. 201—Principles of Physical Metallurgy[2]	3
Met. E. 203—Principles of Physical Metallurgy Laboratory[2]	1
Physics 108—Heat, Sound, Light	4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Social Sciences or Humanities[1]	3
Physical Education	1

Architecture and Art

Offered under the College of Engineering.

Architecture is a five-year course offered with two optional curricula. The general option offers advanced work in the design and planning of larger projects and the engineering option emphasizes structural design and theory. Both options lead to the degree of bachelor of architecture. The work in the first year is identical and the student makes his choice between the general option and the engineering option at the beginning of the second year. The engineering option requires calculus and more advanced theoretical and applied mechanics.

The general option in architecture contains a well-balanced program of creative and technical training. Together with the necessary practical experience, it prepares the student for State Professional Registration. The engineering option, likewise, prepares the student for registration, but it offers advanced study in structure in place of architectural design in the last year and qualifies the student in the field of architectural engineering.

[1] Students should consult the department list of approved electives.

[2] Not offered at Chicago Undergraduate Division 1956.

[3] Offered first semester only.

Both options include general studies in the humanities and the social and physical sciences necessary for the understanding and appreciation of better environment.

The department of architecture offers excellent facilities in lecture, drafting, and class rooms. There is a departmental library of nearly 10,000 volumes, over 10,000 slides, and innumerable magazines, pamphlets, and graphic materials.

Since the Undergraduate Division is located in Chicago, the department has numerous opportunities to present outstanding architects, professional lecturers, and inspection trips to museums, galleries, and various types of buildings under construction.

The courses offered in art are primarily designed for the architectural curriculum. Courses in history and appreciation of art are provided for students registered in other colleges of the University.

Regulations governing students who register in the University of Illinois in architecture for the first time in September, 1957, and thereafter:

1. Such students who register at the Chicago Undergraduate Division may not transfer to the Urbana campus until they have completed the full five semesters of architecture at the Chicago Undergraduate Division.

2. Such students who register at Urbana but who later transfer to the Chicago Undergraduate Division must complete the full five semesters of architecture at the Chicago Undergraduate Division prior to readmission at Urbana. *Note:* This does not apply to students who transfer to the Chicago Undergraduate Division for the Summer Session.

Electives

Electives provided in the two architectural curricula may consist of any courses given in the University not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131; Botany 100, 101; Geography 101, 104, 105; Geology 101; Biology 101; Speech 101, 141; English 111, 112; Accountancy 101. Courses with prerequisite of sophomore standing which are acceptable as electives include Rhetoric 152; Economics 108; English 131; Political Science 150, 151, and Sociology 100.

Curriculum in Architecture (Five Years)

FIRST YEAR	FIRST SEMESTER	15 HOURS	SECOND SEMESTER	16 HOURS
Art 181—Freehand Drawing		2	Arch. 101—Introduction to Architecture	3
G.E. 107—Architectural Projections		2	Art 182—Freehand Drawing	2
Math. 112—College Algebra		3	G.E. 108—Architectural Projections	2
Math. 114—Trigonometry		2	Math. 123—Analytic Geometry	5
Rhet. 101—Rhetoric and Composition		3	Rhet. 102—Rhetoric and Composition	3
Elective		2	Physical Education	1
Physical Education		1		

SECOND YEAR FIRST SEMESTER 16 HOURS

Arch. 131—Architectural Design....3
Arch. 141—Materials and Methods of Construction I....2
Art 183—Freehand Drawing....2
Physics 101—General Physics....5
Elective....3
Physical Education....1

SECOND SEMESTER 16 HOURS

Arch. 113—History of Ancient Architecture....2
Arch. 132—Architectural Design....3
Arch. 142—Materials and Methods of Construction II....2
Art 184—Freehand Drawing....2
T.A.M. 171—Elementary Mechanics....3
Electives....3
Physical Education....1

THIRD YEAR FIRST SEMESTER 16 HOURS

Arch. 133—Architectural Design....3
Arch. 143—Materials and Methods of Construction III....2
Arch. 214—History of Medieval Architecture....3
Art 281—Freehand Drawing....2
Sociol. 276—Sociology of the City....3
T.A.M. 172—Strength of Materials....3

Curriculum in Architectural Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 16 HOURS

Art 181—Freehand Drawing....2
G.E. 107—Architectural Projections....2
Math. 112—College Algebra....3
Math. 114—Trigonometry....2
Rhet. 101—Rhetoric and Composition....3
Elective....3
Physical Education....1

SECOND SEMESTER 16 HOURS

Arch. 101—Introduction to Architecture....3
Art 182—Freehand Drawing....2
G.E. 108—Architectural Projections....2
Math. 123—Analytic Geometry....5
Rhet. 102—Rhetoric and Composition....3
Physical Education....1

SECOND YEAR FIRST SEMESTER 16 HOURS

Arch. 131—Architectural Design....3
Arch. 141—Materials and Methods of Construction I....2
Art 183—Freehand Drawing....2
Math. 133—Calculus....3
Physics 101—General Physics....5
Physical Education....1

SECOND SEMESTER 17 HOURS

Arch. 113—History of Ancient Architecture....2
Arch. 132—Architectural Design....3
Arch. 142—Materials and Methods of Construction II....2
Art 184—Freehand Drawing....2
Math 143—Calculus....5
T.A.M. 150—Analytical Mechanics....2
Physical Education....1

THIRD YEAR FIRST SEMESTER 16 HOURS

Arch. 133—Architectural Design....3
Arch. 143—Materials and Methods of Construction III....2
Arch. 214—History of Medieval Architecture....3
Art 281—Freehand Drawing....2
Sociol. 276—Sociology of the City....3
T.A.M. 221—Resistance of Materials....3
T.A.M. 223—Laboratory....1

College of Liberal Arts and Sciences

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted

to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years and to change his vocational objective without additional time. Such a change after the beginning of the junior year usually can not be made without loss of time. It is assumed that upon completion of the two years' work in the Chicago Undergraduate Division students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division, within the framework of University of Illinois requirements.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, pre-medicine, pre-dentistry, pre-nursing, teacher-education, pre-law, pre-veterinary medicine, pre-journalism, and one year of occupational therapy. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in the field of concentration the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum.

Under the guidance of an adviser, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 46 and 47 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Physical Education — Four semesters.

Military Science—Four semesters, except that men transferring from the Chicago Undergraduate Division with sixty hours are exempt from this requirement.

Rhetoric—Rhetoric 101 and 102. (A student with "C" or "D" in Rhetoric 102 must pass qualify-

ing examination or take Rhetoric 200.)

Foreign Language—Equivalent of two college years in same language.

U. S. History—One unit of American History in high school or History 151 and 152.

Mathematics—One unit of algebra and one unit of plane geometry in high school or Mathematics 101 and 102.

Biological Sciences[1]—Eight hours.

Physical Sciences[1]—Eight hours.

Humanities[1]—Eight hours.

Social Sciences[1]—Eight hours.

Major—Twenty approved hours in one department.

Minor(s) — Twenty approved hours in one or two departments.

Advanced hours—Thirty hours of credit in courses not open to freshmen and sophomore.

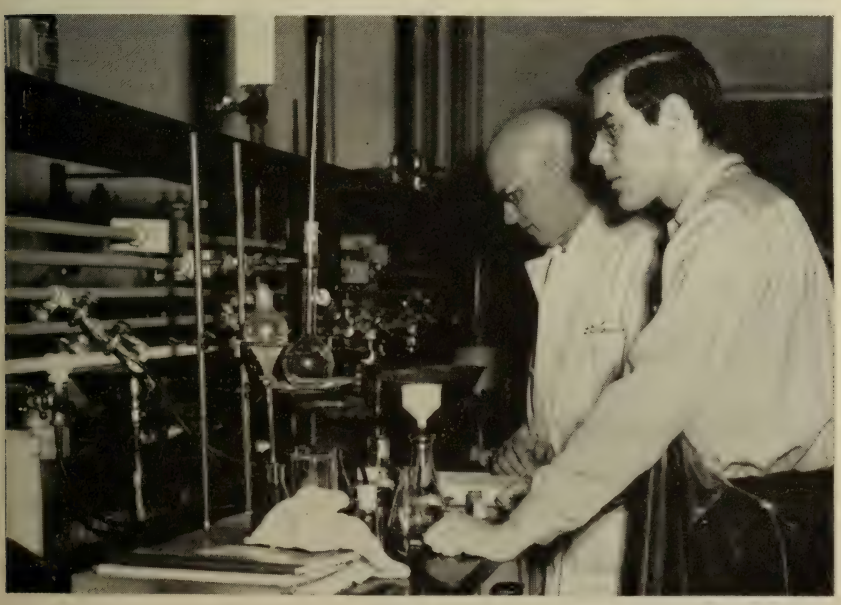
Residence — Either first ninety hours uninterrupted, or last thirty hours uninterrupted at the University of Illinois. For students at the Chicago Undergraduate Division, the junior or senior year (thirty semester hours) must be taken at Urbana.

Average—3.0 ("C") minimum average in all work and in all work at Illinois.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of "D."

---

[1] The eight hours must be taken in approved sequence.



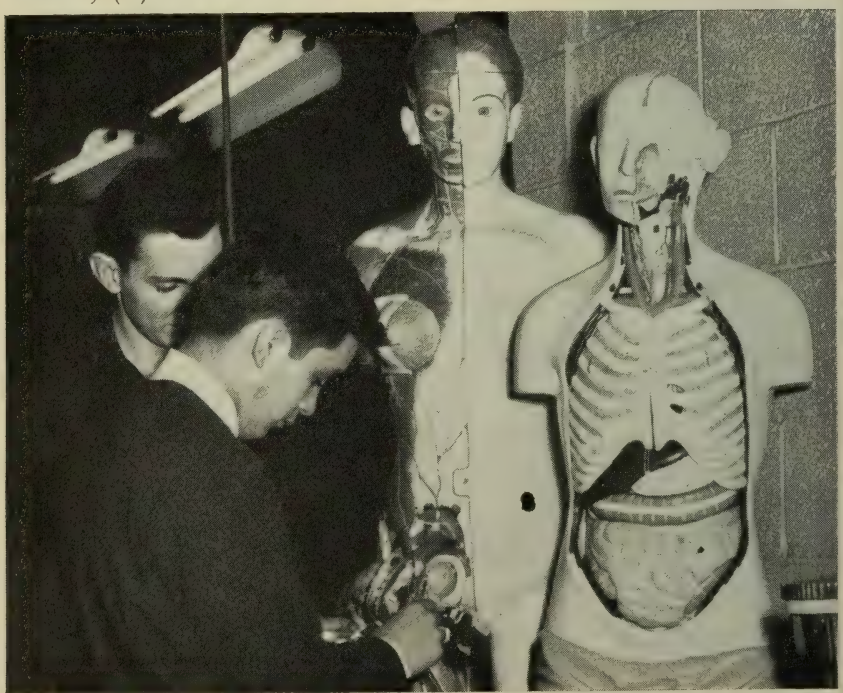
Required Subjects

1. **Foreign Language.** A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, Russian, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portuguese 104, Russian 104, Spanish 104, or a more advanced course in any of these languages. Proficiency examinations are offered in French, German, and Spanish. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

2. **Group Requirements.** To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

Basic Knowledge. From high school: one unit of American history or History 151 and 152; one unit of algebra and one unit of plane geometry or Mathematics 101 and 102.

General Education. An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.



Electives

1. **Liberal Arts and Sciences.** Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

2. **Other Colleges.** Electives totaling as much as but not more than thirty-two hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list approved by the faculty:

Accountancy. A total of 6 hours (including not more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics. A total of 6 hours.

Architecture. A total of 15 hours.

Art. A total of 15 hours unless the student is majoring in history of art.

Aviation. A total of 3 hours.

Business Law. A total of 6 hours.

Economics. All courses.

Education. A total of 20 hours.

Engineering. A total of 10 hours.

Food Technology. A total of 6 hours.

Forestry. A total of 3 hours.

Home Economics. All courses.

Horticulture. A total of 6 hours.

Hygiene. A total of 2 hours.

Journalism. A total of 10 hours.

Landscape Architecture. A total of 7 hours.

Law. A student of senior standing with an average of 3.5 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the University of Illinois College of Law. A student of senior standing with an average of 3.5 who has completed his first three years (not less than 88 semester hours excluding basic military and physical education) in residence at the University of Illinois (a student at the Chicago Undergraduate Division must complete his junior year with at least 30 semester hours at Urbana) and who transfers to an accredited college of law other than that of the University of Illinois may count 32 hours of law toward the A.B. degree. The applicant for the degree will petition the dean of the College of Liberal Arts and Sciences, who may approve the granting of the bachelor's degree if all the college and university requirements have been met.

Library Science. A total of 20 hours.

Management and Marketing. A total of 6 hours. Typing, secretarial training, and shorthand may not be counted for credit.

Military Training. A total of 8 hours in advanced courses.

Music. A total of 15 hours approved by the Director of the School, unless the student is majoring in music.

Physics. All courses.

Chemistry and Chemical Engineering

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 123, and who do not have two units of high school credit in French or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing.

Curriculum in Chemistry

FIRST YEAR — FIRST SEMESTER — 17 HOURS	
Chem. 107—General Chemistry[1]	5
German or French	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER — 17 HOURS	
Chem. 108—General Chemistry and Qualitative Analysis	5
German or French	4
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	

SECOND YEAR — FIRST SEMESTER — 16 HOURS	
Chem. 124—Quantitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	5
Physical Education	
Electives[2]	3

SECOND SEMESTER — 17 or 18 HOURS	
Chem. 234—Organic Chemistry	5
Math. 143—Calculus	5
Physics 107—Electricity, Magnetism Modern Physics	5
Physical Education	
Electives[2]	2 or 3

Curriculum in Chemical Engineering (Four Years)

FIRST YEAR — FIRST SEMESTER — 16 HOURS	
Chem. 107—General Chemistry[1]	5
G. E. 101—Elements of Drawing	3
Math. 123—Analytic Geometry[3]	5
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER — 15 to 18 HOURS	
Chem. 108—General Chemistry and Qualitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	4
Rhet. 102—Rhetoric and Composition	3
Electives[2]	0 to 3
Physical Education	

[1] All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2] Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

[3] Students without the required entrance credits in mathematics take Mathematics 112 (or 111), 114, 123, 133, and 143.

SECOND YEAR FIRST SEMESTER 18 HOURS

Chem. 124—Quantitative Analysis.....5
German or French[1].....4
Math. 143—Calculus 5
Physics 107—Electricity, Magnetism, Modern Physics.....4
Physical Education.....

SECOND SEMESTER 17 HOURS

Chem. 342—Elementary Physical Chemistry[2] 3
German or French[1].....4
Physics 108—Heat, Sound, Light.....4
T.A.M. 150—Analytical Mechanics (Statics) 2
Physical Education.....
Electives[3] 4

Optional Curriculum in Chemical Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 15 to 17 HOURS

Chem. 101 or 102—General Chemistry[4]..5 or 3
German or French.....4
Math. 112—College Algebra.....3
Math. 114—Trigonometry.....2
Rhet. 101—Rhetoric and Composition.....3
Physical Education.....

SECOND SEMESTER 17 HOURS

Chem. 106—Inorganic Chemistry.....5
German or French.....4
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition.....3
Physical Education.....

SECOND YEAR FIRST SEMESTER 17 HOURS

Chem. 110—Qualitative Analysis.....5
German or French.....4
Math. 133—Calculus 3
Physics 106—Mechanics 5
Physical Education.....

SECOND SEMESTER 18 HOURS

Chem. 124—Quantitative Analysis.....5
German or French.....4
Physics 107—Electricity, Magnetism, Modern Physics.....4
Math. 143—Calculus 5
Physical Education.....

Curriculum in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining the B.S. degree. It specifies the courses essential to a strong foundation in physics and permits concentration in the first two years on basic courses which are prerequisite to advanced courses in physics and mathematics.

It is planned for a student entering with four years of high school mathematics, including trigonometry (see, however, footnote 1 following curriculum), a year of chemistry and no French or German. A student who can satisfy the college language requirement on entering has the distinct

---

[1] Two years of French and/or German are required for the B.S. degree. Two units of high school credit in either of these languages is equivalent to one year of college credit. Students entering without German or French in high school may substitute the second year of the language requirement for the eight hours of electives referred to in footnote 3.

[2] Not given at Chicago Undergraduate Division.

[3] Eight hours of electives must be chosen from the Divisions of Humanities or Social Sciences with the approval of the adviser. The courses are intended to broaden the engineer and provide an interest and liberal education in history, language, literature, philosophy, political science, or public speaking.

[4] Students who qualify for Chemistry 107 should take the Chemistry 107, 108, 124, 342 sequence rather than Chemistry 101, 106, 110, 124 and thus have five additional hours of advanced electives.

advantage of adding 16 hours of electives to his course of study. A student who has a year of high school biology will also have more freedom in choice of electives (see footnote 4 following curriculum).

To enter the physics curriculum, an entering freshman must rank in the upper half of his high school class. To be permitted to register in advanced physics or mathematics courses in this curriculum students must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military science and physical education, and a combined grade average of at least 3.5 in all courses completed in physics and mathematics. Transfer students must have a corresponding record in the institution from which they transfer.

FIRST YEAR FIRST SEMESTER 16 HOURS	
Math. 123—Analytic Geometry[1]	5
Chem. 103—General Chemistry[2]	4
German or French[3]	4
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER 16 OR 17 HOURS	
Math. 133—Calculus[1]	3
Chem. 104—Chemistry of the Metallic Elements[2]	4
German or French[3]	4
Rhet. 102—Rhetoric and Composition	3
Physical Education	
Electives	2 or 3

SECOND YEAR FIRST SEMESTER 17 HOURS	
Math. 143—Calculus[1]	5
Physics 106—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

SECOND SEMESTER 15 HOURS	
Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

Pre-medical Curriculum

Any freshman whose scholastic rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts

---

[1] The prerequisite to entering the stated sequence in mathematics is three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the mathematics placement examination. Students having college credit for algebra and trigonometry are not required to take the examination. A student who does not meet the above prerequisite may meet the requirements in basic mathematics with the sequence Math. 112, 114, 123, 133, 143, but he will receive only 13 hours credit toward the degree.

[2] The chemistry requirement may be satisfied by a year of general chemistry selected from courses Chem. 101 through 108, or by the one-semester course, Chem. 109. A maximum of eight hours in general chemistry will be counted toward the degree, except that ten hours will be allowed for Chem. 107 and 108.

[3] The language requirement is a reading knowledge of German or French. A student planning to enter graduate study should attain a reading knowledge of both German and French.

[4] The elective subjects must include at least 24 hours of course work in humanities, social sciences, and biological sciences. The courses must satisfy the general education requirements of the college, except that students offering one unit or more of biology for admission may substitute additional courses in humanities and social sciences for biological sciences. Students will be advised to include six to eight hours of physics and three to six hours of mathematics among the remaining electives.

and Sciences, is eligible for admission to the pre-medical curriculum. Pre-medical students must maintain a 3.5 average, or they will be transferred to the general curriculum. A student transferring to this college with advanced standing must meet this in terms of the University's grading system in order to be admitted to the pre-medical curriculum.

Other factors being equal, students at the University of Illinois who have completed the pre-medical curriculum with an average of 4.3 or better, will be given preferential consideration by the Committee on Admissions, provided that at least the second and third years have been done within the University.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	SEMESTER HOURS
Non-science Courses (32 semester hours required)	
English	6
Foreign Language	6
Social Science and Humanities (at least three hours from each area)	16
Electives	4
Laboratory Sciences (32 semester hours required)	
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and embryology)	10
Chemistry (including in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	14
Physics (including laboratory work in mechanics, heat, sound, light, and electricity)	8
Free Electives	24
Total	88

Curricula in Nursing

The University offers two degree programs leading to a Bachelor of Science in Nursing. One is for students direct from high school, the second is a continuation program for registered nurses who meet a specific set of requirements. Each program is made up of two phases—a pre-professional year in the College of Liberal Arts and Sciences, and the professional phase administered by the School of Nursing. Admission to the pre-professional year in both programs is restricted to students from the upper half of the high school class who are eligible to enter the College of Liberal Arts and Sciences. Transfer students must have a 3.0 scholastic average.

Admission to the professional phase is on recommendation of the admissions committee of the School of Nursing after completion of the following requirements:

	SEMESTER HOURS
Physical Education	2
Rhetoric 101, 102	6
Chemistry 102 (or 101), 132	6-8
Biology 101	4*
Humanities	6-8
Social Sciences	6-8
Electives	
Total	32

* Not required of registered nurses who are candidates for the continuation program.

Specific questions on both programs should be addressed to the Dean of the School of Nursing.

Pre-dental Curriculum

Students applying for admission to the pre-dental curriculum must have ranked in the upper half of their high school graduating class. They must maintain at all times in the curriculum a minimum average of 3.5. The work covered by the first two years of the pre-medical curriculum enables students to meet the requirements for admission to the University of Illinois College of Dentistry. Since the function of the pre-dental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours also include history, economics, sociology, philosophy, and at least one modern language.

The specific requirements for admission to the College of Dentistry are as follows:

	SEMESTER HOURS
Chemistry (including three hours of quantitive analysis and four hours of organic chemistry—Chemistry 101 or 102, 105, 122, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology[1])	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives (including history, economics, sociology, philosophy, and at least one modern language; excluding military, hygiene, and physical education)	30
Total	60

[1] The general zoology requirement may be met by Biol. 101 and 131 or Biol 101 with a grade of "B."

Pre-dental students who wish to be candidates for the degree of Bachelor of Science in Dentistry on the completion of the second year in the College of Dentistry should consult the College Catalog.

Pre-veterinary Curriculum

The two-year pre-veterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the pre-veterinary curriculum must rank in the upper half of their high school graduating class. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	SEMESTER HOURS
Chemistry (including organic and quantitative analysis—Chemistry 101 or 102, 105, 122, and 133)	16
Biological Sciences (including botany and general zoology)	8
Physics (including laboratory—Physics 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	9
Free electives	7
Total	60

The pre-veterinary curriculum is extremely rigid and failure to register in the prescribed courses in the proper sequence may result in an additional semester of study.

Pre-law Curriculum

The pre-legal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Service at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours. The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

Home Economics Curriculum

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Teacher Education Curricula

Of the curricula in teacher education which have been approved by the College of Liberal Arts and Sciences, preliminary work in thirteen curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

While these curricula vary considerably from one another, the common core of the first two years is as follows:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR SEMESTER HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech 101	3	
Foreign Language (until a 104 course is completed)	8	8
Science	6-8	
English or Social Studies as required		6-8
Specific requirements, Education 101, History 152, Political Science 150, Psychology 100		12
Work in major teaching field and electives	3-7	4-6
Total	30-32	32-34

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this college.

The work of the first two years in this curriculum has the following pattern:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR SEMESTER HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech	2-3	
Language arts	6-8	
Science, biological and physical	8	8
Social Studies	8	
Specific requirements, Education 101, Geography 104, History 152, Political Science 150, Psychology 100		15
Electives		7-9
Total	32-34	32-34

Admission to the curricula preparatory to teaching deaf and hard-of-hearing children and mentally handicapped children requires the meeting of qualitative and physical requirements and a personal interview. The determination of courses will be made with a teacher education advisor.

Pre-journalism Curriculum

Students planning to enter the School of Journalism and Communications register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the School of Journalism and Communications as a candidate for a degree, a student must have completed fifty-six semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military training, with an average grade of 3.5 (one-half of the college work with an average grade of "B" and one-half with an average grade of "C"). An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, twelve hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The School of Journalism and Communications offers the following curricula: editorial, advertising, publication management, and radio-television.

School of Physical Education

All students entering the University as freshmen are required to obtain four hours of credit in physical education. Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to prescribed activities. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for one and one-half hours. All general courses in physical education carry one hour of credit.

Women students entering the University as freshmen are required to obtain credit for four semester hours of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Women are offered instruction in elementary and intermediate rhythms, ballroom dance, individual gymnastics, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, games for school and playground, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's physical education classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extra-curricular activities in sports and the dance.

Men students entering the University with less than sixty semester hours credit are required to secure four semesters of credit in physical education, including the amount transferred. In addition to intercollegiate and intramural athletics, men students in the physical education classes are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, personal defense activities, and a basic physical fitness program.

Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempt from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce and Business Administration.

In addition to the service program, the Physical Education Department offers the first two years of the professional training curricula leading to the degrees of Bachelor of Science in Physical Education, in Health Education, in Recreation, and in Dance. Complete information concerning the professional training curricula is available at the office of the Director of Physical Education.

U. S. Army Reserve Officers' Training Corps

Authorization

The Reserve Officers' Training Corps (R.O.T.C.) is organized under authority of the Act of Congress of June 3, 1916, and was activated at the University of Illinois, Chicago Undergraduate Division, in September, 1950.

Educational Aim

The fundamental educational aim of the R.O.T.C. is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and, to so prepare him, that in time of national emergency he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspects of the military training program gives the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should instill in the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The R.O.T.C. course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the R.O.T.C. are that the student be regularly enrolled in the University, be a citizen of the United States, be within specified age limits, be physically qualified, and be approved by the Professor of Military Science and Tactics.

Program of Instruction

College level R.O.T.C. instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, comprising the last two years of the program. Only the first three years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the basic course. Students in the basic course will devote three hours a week to military instruction which will consist of two hours of classroom instruction and one

hour of drill. Accreditation for the basic course is one hour each semester. A student entering the University of Illinois after successfully completing military training at a high school or preparatory school which has an accredited Junior Division R.O.T.C. program will be entitled, upon enrollment, to such credit as may be determined by the Professor of Military Science and Tactics. In no case will this credit exceed the first year of the basic course. Any member of the U. S. Army Reserve who has completed a six-month tour of active duty for training is eligible to enroll in the basic course of ROTC. Constructive credit not to exceed the first year of the basic course may be given to individuals in this category. These individuals also may substitute completion of a satisfactory year of ROTC training for a required satisfactory year of training in the Ready Reserve.

Advanced Course

The advanced course of the R.O.T.C. leads to a Reserve or Regular commission in the U. S. Army. The first year of advanced course training in Infantry is offered to students who have successfully completed the two-year basic course or to veterans of the Army, Air Force, Navy, and Marine Corps who have completed one year of active service in the Armed Forces and have been honorably discharged. Any student enrolling in the advanced course must be prepared to pursue the course to completion, and must be able to qualify for appointment as a second lieutenant prior to reaching twenty-eight years of age. The objective of the advanced course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular Army units.

The advanced course consists of five hours of instruction each week four hours of which is classroom instruction and one hour of drill. Accreditation for the advanced course is three credit hours each semester. All candidates for a Reserve commission must have reached an age of not less than twenty-one years, completed four years of education at college or university level, and successfully completed the advanced course which includes a summer encampment. The encampment is of approximately six weeks duration and is usually held at the end of the first year of the advanced course. Students completing all requirements for a Reserve commission, but who have not reached the age of twenty-one will be given a certificate of capacity and a temporary commission and will receive the Reserve Officer Commission shortly after their twenty-first birthday. Those with distinguished records in R.O.T.C. are selected for consideration for Regular commission in the Army.

All members of the advanced course will receive the following: monetary allowance in lieu of subsistence, officer-type uniform, the pay of the first enlisted grade while at the advanced summer encampment, and all necessary texts and materials on a loan basis.

Deferment from Selective Service

Deferment from Selective Service is granted for completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and civilian faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the R.O.T.C., including the basic course, receive an Army officer-type uniform and textbooks at government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of $10 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

Courses of Instruction

Accountancy

101. Principles of Accounting. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit.

105. Accounting Procedure. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting; business forms and records; payroll accounting; single entry; financial statement analysis. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

106. Elementary Cost Accounting. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. I, II; 3. Prerequisite: One year of accountancy; sophomore standing.

108. Intermediate Accounting. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. I, II; 3. Prerequisite: One year of accountancy; sophomore standing.

Architecture

101. Introduction to Architecture. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. I, II; 3.

113. History of Ancient Architecture. A description and analysis of the development of the architecture of the ancient East, Greece, and Rome, related to the environmental and cultural setting. I, II; 2. Prerequisite: Architecture 131 or sophomore standing.

131. Architectural Design. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. I, II; 3. Prerequisite: Architecture 101; registration in General Engineering 108.

132. Architectural Design. Continued study of the fundamentals of architectural design. I, II; 3. Prerequisite: Architecture 131 or consent of instructor.

133. Architectural Design. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. I, II; 3. Prerequisite: Architecture 132.

141. Materials and Methods of Construction I. Wood frame construction as used in houses; manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. I, II; 2. Prerequisite: Registration in Architecture 131.

142. Materials and Methods of Construction II. Non-fire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures and drawings. I, II; 2. Prerequisite: Architecture 141.

143. Materials and Methods of Construction III. Semi-fireproof construction; manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. I, II; 2. Prerequisite: Architecture 142.

214. History of Medieval Architecture. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. I, II; 3. Prerequisite: Architecture 113 or consent of instructor.

Art

111. Introduction to Ancient and Medieval Art. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. I; 3.

112. Introduction to Renaissance and Modern Art. Cultural analysis of the inter-related fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. II; 3.

115. Art Appreciation. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students. I, II; 3.

181. Freehand Drawing. Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture and landscape architecture. I, II; 2.

182. Freehand Drawing. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 181.

183. Freehand Drawing. Charcoal drawing from the cast; water color. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 182.

184. Freehand Drawing. Charcoal drawing from the cast; water color. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 183.

281. Freehand Drawing. Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. I, II; 2.

Biological Sciences

101. Fundamentals of Biology. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for both Biol. 101 and D.G.S. 131.

102. Fundamentals of Biology, continued. Application of biological principles to the living world. Lectures and laboratory. I, II; 4. Prerequisite: Biol. 101. Credit will not be given for both Biol. 102 and D.G.S. 132.

111. General Botany. A survey of the plant kingdom. The morphology and physiology of representative plants from thallophytes through angiosperms are considered in building up a system of natural classification based upon phylogenetic relationships. The importance of plants in the system of nature and human economics is emphasized. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement or consent of instructor.

115. Introductory Systematic Botany (Plant Taxonomy). Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 102 or 111.

116. Economic Botany. Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Forest, drug, food, textile, beverage and other industrial institutions. Lectures and discussion II; 3. Prerequisite: Biology 102 or 111.

121. Microbiology. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological, and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures and laboratory. I, II; 4. Prerequisite: Biology 102 or consent of instructor.

126. Advanced General Bacteriology. General technic, special apparatus and methods. Lectures and laboratory. II; 4. Students with 95 or more

credit hours receive only 3 hours credit. Prerequisite: Biology 101 and 121; credit or registration in Chemistry 105.

131. General Zoology. A survey of the animal kingdom, the phylogenetic relationships of animals and classification. Emphasis is placed upon economically important and parasitic forms. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 111.

132. Comparative Vertebrate Anatomy. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. I, II; 5.

136. Bird Study. Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation. II; 2.

141. Vertebrate Physiology. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 101.

142. Physiology of the Nervous System. This course is planned to give an understanding of the physiological activities by which the nervous system carries out its function. Recommended as background for students of psychology, education, or biological sciences. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 101 and 141.

333. Vertebrate Embryology. The development of the vertebrate body and its organs. Lectures and laboratory. I, II; 5. Prerequisite: Biology 101 and 132; junior standing.

Business Law

100. Basic Principles of Business Law. Basic principles of business law, covering the subjects of contracts, sales, negotiable instruments, and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. I, II; 3. Prerequisite: Accountancy 105; Economics 102; forty-five credit hours.

Chemistry

101. General Chemistry. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. I, II; 5. Students with 95 or more credit hours receive only 3 hours credit. Students who have received entrance credit for high school chemistry are given only 3 hours credit for Chemistry 101. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

102. General Chemistry. For students who have had one year of high school chemistry. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: One unit of entrance credit in chemistry or equivalent.

103. General Chemistry. Lectures, recitations, and laboratory. For engineering students who have had no chemistry. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Students who have received entrance credit for high school chemistry are given only 3 hours credit in Chemistry 103. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in Mathematics, or credit in Mathematics 103 or 112.

104. Chemistry of the Metallic Elements. Lectures, recitations, and laboratory. Limited to students in engineering curricula. I, II; 4. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105 or 106, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

105. Inorganic Chemistry and Qualitative Analysis. Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 104 or 106, I, II; 5. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

106. Inorganic Chemistry. Metallic elements. For students in curricula in chemistry, chemical engineering, and chemistry majors who are not premedical students. I, II; 5. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104 or 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

107. General Chemistry. For students in curricula in chemistry or chemical engineering. Lectures, recitations, and laboratory. I; 5. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.

108. General Chemistry and Qualitative Analysis. For students in curricula in chemistry or chemical engineering. Lectures, recitations, and laboratory. II; 5. Students with 95 or more credit hours receive only 3 hours credit. Credit is not granted to students who have received credit in Chem. 104, 105, 106, or 109. Prerequisite: Chemistry 107.

109. General and Inorganic Chemistry. A course in general chemistry and the chemistry of the inorganic elements and compounds, completing in one semester the work usually taken in two. Open only to those who have had high school chemistry and who graduated from high school in the highest quarter of the class. Students who plan to specialize in chemistry or chemical engineering are advised to register in Chemistry 107 rather than Chemistry 109. Premedical students requiring more than five hours of general-inorganic chemistry are advised to take a two-semester sequence instead of Chemistry 109. Not open to students who have college credit in chemistry. I, II; 5. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: High school chemistry; graduation from high school in the highest quarter of the class.

110. Qualitative Analysis. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students whose major is chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. I, II; 5. Prerequisite: Chemistry 106.

122. Elementary Quantitative Analysis. Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. I, II; 5. Prerequisite: Chemistry 104, 105, 106, or 109.

123. Quantitative Analysis for Engineers. A course in quantitative analysis designed for the needs of engineers, especially ceramic and metallurgical. I, II; 5. Prerequisite: Chemistry 104, 105, or 109.

124. Quantitative Analysis. For all students in the chemistry curriculum and chemical engineering. I, II; 5. Prerequisite: Chemistry 108, 109, 110.

132. Elementary Organic Chemistry. This course does not satisfy the organic chemistry prerequisite for Chemistry 350, 354, or 355. Beginning course in organic chemistry especially for students in prenursing curriculum. II; 3. Prerequisite: Chemistry 101, 102, 109, or equivalent.

133. Elementary Organic Chemistry. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Lectures, recitations, and laboratory. I, II; 5. Prerequisite: Chemistry 105, 109 or 110.

234. Organic Chemistry. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. I, II; 5. Prerequisite: Chemistry: 124.

247. Elementary Physical Chemistry. For premedical students only. Lectures and laboratory. II; 4. Prerequisite: Chemistry 122 and 133; Physics 102, or equivalent.

Civil Engineering

105. Surveying. Use of transit, level, and tape; fundamental surveying procedures and office computations; land surveying. I, II; 2. Prerequisite: General Engineering 101; Mathematics 114.

106. Surveying. Topographic surveying; field astronomy; route surveying; stream gaging; introduction to photogrammetry. I, II; 3. Prerequisite: Civil Engineering 105; credit or registration in General Engineering 111.

115. General Surveying. Use and care of surveying instruments; methods of making engineering surveys; computations of areas and volumes; contour problems; transit stadia mapping methods. I, II; 3. Prerequisite: General Engineering 101 or 104; Mathematics 114.

160. Building Construction. Materials, types of construction, and details for buildings. I, II; 3. Prerequisite: Sophomore standing.

235. Plain Concrete. Production, properties, specification requirements and uses of Portland cement, aggregates, mixing water, and admixtures; proportioning; field practice in the production of concrete; laboratory practice including tests on materials and concrete of various proportions; calculations and graphs based on values from concrete proportioning projects. I, II; 2. Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.

Economics

100. Introduction to Business. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only. I, II; 3.

102. Principles of Economics, I. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. I, II, 3; Prerequisite: One year of college work.

103. Principles of Economics, II. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. I, II; 3. Prerequisite: Economics 102.

108. Elements of Economics. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. I, II; 3. Prerequisite: One year of college work.

136. American Economic History. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. I, II; 3. Open to freshmen and sophomores only.

138. European Economic History. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. I, II; 3. Open to freshmen and sophomores only.

170. Elements of Statistics. Methods of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credit for Psychology 135, Mathematics 161, or Economics 171. I, II; 3. Prerequisite: Economics 102 or 108; sophomore standing.

Education

101. Nature of the Teaching Profession: An Orientation Course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher. I, II; 2.

09. Educational Psychology. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. I, II; 3. Prerequisite: Psychology 100.

Electrical Engineering

126. Electric Circuits and Fields. Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. I, II; 4. Prerequisite: Physics 107 and Mathematics 143.

English

101. Introduction to Poetry. Understanding of poetry through the reading and discussion of representative poems. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. This course, plus English 102 and 103, satisfies the humanities requirement in general education.

102. Introduction to Drama. Understanding of drama through the reading and discussion of representative plays. The reading list includes selections from Greek, Elizabethan, modern English, continental, and American drama. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit.

103. Introduction to Fiction. Understanding of fiction through the reading and discussion of representative short stories and novels. The reading list includes Jane Austen's *Pride and Prejudice,* Balzac's *Pere Goriot,* Dostoevski's *Crime and Punishment,* E. M. Forster's *A Passage to India,* and Hemingway's *A Farewell to Arms.* I, II; 3. Students with 95 or more credit hours receive only 2 hours credit.

113. American Literature. Classic American authors before the Civil War: an introduction to Franklin, Poe, Emerson, Hawthorne, Melville, Whitman, and others. I, II; 3. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

114. American Literature. Classic American authors after the Civil War to the present: an introduction to Mark Twain, James, Dreiser, Hemingway, O'Neill, Frost, and others. I, II; 3. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

121. Chief English Writers Before 1800. *Canterbury Tales, Utopia,* two plays by Shakespeare, *Paradise Lost, Gulliver's Travels, Tom Jones, Rasselas.* This course, with English 122, is the normal prerequisite to an English major. This course, plus English 122 and 123, satisfies the humanities requirement in general education. I, II; 3. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

122. Chief English Writers of the Nineteenth Century. Wordsworth, Byron, Carlyle's *Past and Present,* Arnold's prose and poetry, FitzGerald's *The Rubaiyat of Omar Khayaam,* readings from T. H. Huxley, Browning's poems, and one novel. I, II; 3. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

123. Chief Modern English Writers. Conrad, Eliot, Joyce, Lawrence, Shaw, Yeats, and others. I, II; 3. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

131. Introduction to Shakespeare. I, II; 3. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

French

101. Elementary Course. Grammar, pronunciation, reading of modern authors, composition, and conversation. For students who have no credit in French. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101 without French 102.

102. Elementary Course. Continuation of French 101. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite French 101 or one year of high school French.

103. Modern French. Rapid reading of modern authors, syntax, and composition; some conversational practice. I, II; 4. Prerequisite: French 102 or two years of high school French.

104. Modern French. Continuation of French 103. I, II; 4. Prerequisite French 103 or three years of high school French.

201. Introduction to French Literature. I; 3. Prerequisite: French 104 or four years of high school French.

202. Introduction to French Literature. Continuation of French 201. II; 3. Prerequisite: French 104 or four years of high school French.

General Engineering

101. Engineering Drawing. Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. I, II; 3. Prerequisite: Plane geometry.

102. Engineering Geometry. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawings. I, II; 3. Prerequisite: General Engineering 101.

107. Architectural Projection. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. I, II; 2. Prerequisite: Plane geometry.

108. Architectural Projections. Shades and shadows; oblique, isometric, and perspective drawings; developments. I, II; 2. Prerequisite: General Engineering 107.

111. Advanced Drafting. For civil engineers. I; 2. Prerequisite: General Engineering 101 and 102, or consent of instructor.

112. General Engineering Technology. For mechanical engineers. II; 2. Prerequisite: General Engineering 101 and 102, or consent of instructor.

210. Industrial Production Illustration. Mechanical and freehand drawings in axonometric, oblique, and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. I, II; 3. Prerequisite: General Engineering 102, or 107 and 108.

212. Graphical Calculations. Use of various types of slide rules with special attention to the log-log scales; rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper, construction and use of nomographs or aligning charts. For students in engineering; accepted as an approved elective in all engineering curricula. I, II; 1. Prerequisite: General Engineering 101 or equivalent; Mathematics 123.

Geography

101. Elements of Geography. The geographic point of view; elements of physical landscape; planetary relations, weather, climate, climatic regions, landforms, natural resources. Geography 101 and 111 meet the general education requirement in physical sciences, and Geography 101 and 104 meet the general education requirement in social sciences, in the College of Liberal Arts and Sciences. Lectures and quiz. I, II; 5. Students with 95 or more credit hours receive only 4 hours credit.

104. World Regional Geography. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Geography 101 or consent of instructor.

105. Introductory Economic Geography. Man's utilization of the major economic resources of the world from the standpoint of geographic patterns. Primarily for commerce students but open to others. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit.

111. Introductory Meteorology. The atmosphere; its composition, functions, and behavior in the production of various weather types; air masses; application to present-day activities. I, II; 3. Prerequisite: Geography 101 or consent of instructor.

114. Conservation of Natural Resources. Elements of the conservation of natural resources (soils, water, biotic, mineral, recreational), with special emphasis given to the general principles of conservation as they apply to the United States. II; 3. Prerequisite: Sophomore standing.

123. Geography of Illinois. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. II; 3. Prerequisite: Geography 101 or 104, or consent of instructor.

Geology

101. Physical Geology. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. Geology 101 and 102 meet the general education requirement in the physical sciences. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit.

102. Historical Geology. Evolution of the earth and its life. Lectures and laboratory. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Geology 101 or Division of General Studies 142.

131. Mineralogy. A systematic study of minerals. The nature of minerals as crystalline materials, and their geologic relations are emphasized. Crystal models, crystals, and the common non-silicate minerals are studied in the laboratory. Lecture and laboratory. I; 4. Prerequisite: One semester of college chemistry.

132. Mineralogy. A systematic study of minerals and rocks. The geologic relationships of minerals and rocks are emphasized. The common silicate minerals and the important varieties of rocks are studied in the laboratory. Lecture and laboratory. II; 4. Prerequisite: Geology 131.

150. Geology for Engineers. I. II; 3. Prerequisite: Sophomore standing in the College of Engineering.

German

101. Elementary Course. Oral practice, reading, and grammar for beginners. Not open to students who have high school credit in this language. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102.

102. Elementary Course. Continuation of German 101. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German.

103. Intermediate Course. Modern narrative prose. Oral practice and sight reading. I, II; 4. Prerequisite: German 102, two years of high school German, or equivalent.

104. Intermediate Course. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. I, II; 4. Prerequisite: German 103, three years of high school German, or equivalent.

113. Practice in Conversation. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. I; 2. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104.

210. Masterpieces of German Literature. Introduction to German literature, in subjects, forms, and ideals. II; 3. Prerequisite: Two years of college German, or equivalent.

History

111. History of Modern Western Civilization to 1815. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the Social Science requirement in Liberal Arts and Sciences. I; 4. Students with 95 or more credit hours receive only 3 hours credit.

112. History of Western Civilization from 1815 to the Present. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. II; 4. Students with 95 or more credit hours receive only 3 hours credit.

131. History of England to 1688. A survey of the political and constitutional, social and economic, church and cultural, and imperial history of the British people from the beginning of English history through the revolution of 1688. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. I; 4. Students with 95 or more credit hours receive only 3 hours credit.

132. History of England from 1688 to the Present. A survey of the political and constitutional, social and economic, diplomatic and imperial, and cultural history of the British people from 1688 to the present. II; 4. Students with 95 or more credit hours receive only 3 hours credit.

151. History of the United States to 1865. Colonial foundations, movement for independence, early years of the Republic. I; 3. Prerequisite: Sophomore standing.

152. History of the United States from 1865 to the Present. A century of national life and organization. I, II; 3. Prerequisite: Sophomore standing.

181. The Ancient World. Ancient empires and Greece. I; 3. Prerequisite: Sophomore standing.

182. The Ancient World. Rome. II; 3. Prerequisite: Sophomore standing.

Humanities

101. Values in Literature. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities. I; 4.

102. Values in Literature. A general education course designed to guide the student to an understanding and appreciation of values in literature and classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 102 in addition to English 101, 102, or 103. II; 4. Prerequisite: Humanities 101.

151. The Heritage of Western Culture. A study of literary masterpieces representing significant contributions to the thinking of the Western world on topics of man's fate and his personal adjustment to life. Credit is not given for Humanities 151 in addition to English 101, 102, or 103. This course, plus Humanities 152, satisfies the general education requirement in the humanities. I; 4. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

152. The Heritage of Western Culture. A study of literary masterpieces representing significant contributions to the thinking of the Western World in relation to the state and society. Credit is not given for Humanities 152 in addition to English 101, 102, and 103. II; 4. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

Hygiene

101. Personal and Environmental Hygiene. This course is an elective subject for credit as indicated. Students who expect to take Hygiene 110 should take Hygiene 104 instead of Hygiene 101. I, II; 2. Students with 95 or more credit hours receive only 1 hour credit.

104. Personal and Community Health. This course is an elective subject for credit as indicated. Students who expect to take Hygiene 110 should take Hygiene 104 (the prerequisite). Hygiene 104 is a more intensive study of personal and community hygiene. It is especially designed for teachers, coaches, social workers, and others who feel they will need this course in their future professional work. I, II; 2.

110. Public Health. Material presented deals with information about community public health problems and the programs designed to prevent disease and promote health education. This is especially valuable for all

people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. I, II; 2. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

Management

101. Industrial Organization and Management. Organization plans, administrative policies, and management problems with special attention to manufacturing units. I, II; 3. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

Marketing

101. Principles of Marketing. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. I, II; 3. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

Mathematics

101. Basic Mathematics. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. For Liberal Arts and Science students only. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include one year of algebra and one year of plane geometry. II; 3.

102. Basic Mathematics. Continuation of Mathematics 101. I; 3. Prerequisite: Mathematics 101.

103. Introduction to College Algebra. I, II; 3. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

106. Solid Geometry. I, II; 3. Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.

108. Elementary Plane Geometry for Veterans. This course deals with the usual topics of high school geometry. It is designed as a refresher course for veterans who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce and Engineering through this course. I, II; no credit.

109. Fundamentals of Mathematics. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. I, II; 4. Prerequisite: Consent of the department.

110. Fundamentals of Mathematics. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. II; 4. Prerequisite: Mathematics 109.

112. College Algebra. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

114. Plane Trigonometry. I, II; 2. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

123. Analytic Geometry. Plane and solid analytic geometry. I, II; 5. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 111 or 112, and 114.

133. Calculus. First course for students of mathematics and engineering. I, II; 3. Prerequisite: Mathematics 122 or 123.

143. Calculus. Second course for students of mathematics and engineering. I, II; 5. Prerequisite: Mathematics 133.

161. Statistics. II; 3. Prerequisite: Mathematics 111 or 112; sophomore standing.

343. Advanced Calculus. II; 3.

345. Differential Equations and Orthogonal Functions. I, II; 3. Prerequisite: Mathematics 133 and 143, or 137 and 147.

Mechanical Engineering

182. Manufacturing Processes. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. I, II; 3. Prerequisite: General Engineering 101, sophomore standing.

183. Materials Casting. Casting as a process of fabrication; the molding process including machine moulding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. I, II; 3. Prerequisite: General Engineering 101 or 104; sophomore standing.

184. Metal Processing. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. I, II; 3. Prerequisite: General Engineering 101 or 104; sophomore standing.

209. Thermodynamics and Heat Transfer. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles, and processes involving transfers of mass and energy. Basic laws of heat transfer. I, II; 3. Prerequisite: Physics 108; Mathematics 142 or 143.

Military Science and Tactics

101. Freshman Drill and Theory. Basic military instruction to include: Organization of the Army and ROTC; individual weapons and marksmanship, and leadership, drill, and command. I; 1. Prerequisite: Military Science department approval.

102. Freshman Drill and Theory. Basic military instruction to include: American military history, and leadership, drill, and command. II; 1. Prerequisite: Military Science 101 or equivalent.

103. Sophomore Drill and Theory. Basic military instruction to include: Map and aerial photographs; basic tactics, and leadership, drill, and command. I; 1. Prerequisite: Military Science 102 or equivalent.

104. Sophomore Drill and Theory. Basic military instruction to include: Crew-served weapons and gunnery; elementary communications, and leadership, drill, and command. II; 1. Prerequisite: Military Science 103 or equivalent.

205. Junior Advanced Infantry Drill and Theory. Advanced military instruction to include: Leadership; military teaching methods; patrolling; tactics of rifle squad; tactics of rifle and heavy weapons platoons and companies, and leadership, drill, and command. I; 1. Prerequisite: Military Science 103 and 104, successful completion of Armed Forces Qualification test, officer-type physical examination and approval of Military Science department.

206. Junior Advanced Infantry Drill and Theory. Advanced military instruction to include maps and aerial photographs; crew-served weapons and gunnery; mine warfare; field fortifications; tactics — infantry battalion in attack and defense; tactics of rifle and heavy weapons platoons and companies, and leadership, drill, and command. II; 1. Prerequisite: Military Science 205.

Philosophy

101. Introduction to Philosophy. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. Phil. 101, 102, 105 form and approved humanities sequence in Liberal Arts and Sciences. I, II; 3. Prerequisite: Sophomore standing.

102. Logic. Reasoning, detection of fallacies, evidence. I, II; 3. Prerequisite: Sophomore standing.

105. Moral Ideas and Practice. I, II; 2. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

Physical Education for Men

101. Prescribed Exercise. Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.

102. Prescribed Exercise. Prescribed ameliorative exercises adapted to individual needs, capacities and interests. I, II; 1.

103. Prescribed Exercise. Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.

104. Prescribed Exercise. Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.

106. Developmental Activities. Activities that contribute to the development and maintenance of physical fitness according to social and hygienic standards. I, II; 1.

107. Beginning Swimming. Skills, knowledge, attitudes, and conditions I, II; 1. Open to non-swimmers.

109. Advanced Swimming. Skills, knowledge, attitudes, and conditions. I, II; 1. Prerequisite: Ability to swim 100 yards.

112. Individual Tumbling Stunts. Skills, knowledge, attitudes, and conditions. I, II; 1.

113. Double Tumbling Stunts. Skills, knowledge, attitudes, and conditions. I, II; 1.

114. Apparatus Stunts. Skills, knowledge, attitudes, and conditions. I, II; 1.

117. Boxing. Skills, knowledge, attitudes, and conditions. I, II; 1.

118. Wrestling. Skills, knowledge, attitudes, and conditions. I, II; 1.

120. Personal Defense Activities. Skills, knowledge, attitudes, and conditions. I, II; 1.

123. Weight Lifting. Skills, knowledge, attitudes, and conditions. I, II; 1.

129. Volleyball. Skills, knowledge, attitudes, and conditions. I, II; 1.

130. Basketball. Skills, knowledge, attitudes, and conditions. I, II; 1.

132. Archery. Skills, knowledge, attitudes, and conditions. I, II; 1.

136. Badminton. Skills, knowledge, attitudes, and conditions. I, II; 1.

139. Backyard Sports. Skills, knowledge, and conditions. I, II; 1.

140. Boating and Fishing. I, II; 1. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities or approval of the Director of Physical Education.

143. American Square Dance. I, II; 1.

150. Professional Orientation. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors. I, II; 2.

151. Beginning Basketball. Introductory skills, rules and strategy. For physical education majors. I, II; 2.

152. Beginning Football. Introductory skills, rules and strategy. For physical education majors. I, II; 2.

153. Physical Conditioning Programs. Physical fitness tests; callisthenics, medicine ball, bulldozer, grass, all-out and locomotor exercises; leadership techniques. For physical education majors. I, II; 2.

155. Gymnastics. Tumbling and apparatus stunts. I, II; 2.

156. Track and Field. Track events and field events; rules. I, II; 2.

Recreation

170. Outdoor Recreational Sports. Soccer, touch football, volleyball, softball, speedball. I, II; 2.

171. Indoor Recreational Sports. Badminton, handball, paddle tennis, squash racquets, table tennis, weight lifting. I, II; 2.

174. Camp Counseling. Objectives, administration, techniques, activity programs, evaluation. I, II; 3.

176. Principles of Recreation. History of leisure and recreation; concepts of play and recreation; major recreation agencies. I, II; 3.

Physical Education for Women

100. Conditioning Activities. I, II; 1.

101. Individual Gymnastics. Recommendation from the Department of Health Service is necessary for registration in this course. I, II; 1.

102. Modified Activities. Prescribed recreational sports, relaxation, and exercise. I, II; 1. Prerequisite: Recommendation from the Department of Health Service.

105. Elementary Rhythms. I, II; 1.

106. Intermediate Rhythms. I, II; 1. Prerequisite: Physical Education for Women 105 or consent of instructor.

110. Elementary Swimming. S; 1.

123. Basketball. I, II; 1.

124. Volleyball. I, II; 1.

125. Softball. I, II; 1.

130. Badminton. I, II; 1.

131. Golf. Personal equipment to be furnished by student. I, II; 1.

132. Bowling. S; 1.

134. Tennis. I, II; 1. Personal equipment to be furnished by student.

135. Archery. I, II; 1.

140. Boating and Fishing. Open to students who have completed two semesters of physical education. I, II; 1.

141. Tumbling and Apparatus Stunts. The side horse, parallel bars, stall bars, buck, etc., are used to develop skills in balance and co-ordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used. I, II; 1.

142. Ball Room Dance. II; 1.

143. American Square Dance. I, II; 1.

144. Elementary Folk Dance. I, II; 1.

150. Professional Orientation. 1; 2.

151. Body Mechanics, Gymnastics and Hockey. I; 2. For Physical Education majors.

152. Basketball and Softball. II; 1. For Physical Education majors.

153. Soccer, Speedball and Volleyball. I; 1. For Physical Education majors.

154. Tumbling, Apparatus and Tennis. II; 2. For Physical Education majors.

Dance 160. Beginning Contemporary Dance. II; 2. For Physical Education majors.

Dance 236. Folk Dance. II; 1. For Physical Education majors.

Physical Science

101. Introduction to the Physical Sciences. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has credit in general chemistry, physics, or geology. I, II; 4. Prerequisite: Two units of high school mathematics or consent of the department.

102. Introduction to the Physical Sciences. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has credit in general chemistry, physics, or geology. I, II; 4. Prerequisite: Physical Science 101.

Physics

101. General Physics (Mechanics, Sound, and Heat). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. I, II; 5. Prerequisite: Mathematics 114 or 117.

102. General Physics (Light, Electricity, and Magnetism). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. I, II; 5. Prerequisite: Physics 101.

106. General Physics (Mechanics). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. I, II; 4. Prerequisite: Credit or registration in Mathematics 133.

107. General Physics (Electricity, Magnetism, and Modern Physics). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. I; 4. Prerequisite: Physics 106; credit or registration in Mathematics 143.

108. General Physics (Heat, Sound, Light, and Modern Physics). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. II; 4. Prerequisite: Physics 106; credit or registration in Mathematics 143.

341. Electricity and Magnetism. Lectures, problems, and laboratory. This course is fundamental to advanced courses and should be elected as early as possible by those intending to specialize in physics. Fundamental laws logically developed and summarized in Maxwell's equations. Forces and energies associated with electric and magnetic properties of matter. Generation and propagation of electromagnetic waves. I; 4. Prerequisite: General physics and calculus.

Political Science

103. Introduction to Political Science. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: scope and method of political science; constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy. I, II; 3.

104. Introduction to International Politics. This is designed as a survey course. Topics to be covered will include the following: the development of the world system of states; the international political and economic struggle for power; the determination and conduct of foreign policy; problems involved in maintaining peace, and organizations devoted to its maintenance. I, II; 3.

150. American Government: Organization and Powers. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. I, II; 3. Prerequisite: Sophomore standing.

151. American Government: Functions. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. I, II; 3. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

Psychology

100. Introduction to Psychology. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. I, II; 4. Prerequisite: Second semester freshman standing.

125. An Introduction to the Fields of Psychology. An introduction to the basic fields of psychology including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. I; 4. Students taking this course may not take Psychology 220 at the Urbana campus for credit. Prerequisite: Psychology 100, or equivalent, or junior standing.

135. Statistical Methods in Psychology. Application of elementary statistical methods to psychological data. No credit for this course will be given to students who receive credit for Economics 170 or Mathematics 161. II; 3. Prerequisite: Psychology 100.

145. Industrial Psychology. A consideration of socio-psychological principles of behavior in business and industry and of the scientific methods of investigation in this area, and a survey of specific methods of personnel technology. Credit is not given for both Psych. 145 and Psych. 245 at Urbana. II; 3. Prerequisite: Psychology 100.

150. Personality and Human Relations. An introduction to the study of personality in relationship to the social environment. Application of psychological principles to social problems. II; 3. Prerequisite: Psychology 100 or equivalent.

Rhetoric

100. Freshman Remedial Rhetoric and Composition. Open to students who fail the placement test for admission to Rhetoric 101. Intensive review of fundamentals, with considerable practice in composition. Students passing this course will be admitted to Rhetoric 101 without further examination. I, II; no credit.

101. Freshman Rhetoric and Composition. This course provides elementary training and practice in the comprehension and expression of written English. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: A passing grade on the placement examination or in Rhetoric 100.

102. Freshman Rhetoric and Composition. This course provides elementary training and practice in the comprehension and expression of written English. I, II; 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

133. Expository Writing. I; 3. Prerequisite: Rhetoric 101 and 102; sophomore standing.

144. Narrative Writing. Practice in description, narrative sketches, stories. II; 3. Prerequisite: Rhetoric 101 and 102; sophomore standing.

151. Business Letter Writing. I, II; 3. Prerequisite: Rhetoric 102. This course is not counted toward a major in English.

Social Sciences

111. The Individual in Society. A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

112. Bases of American Life. A general education course designed to acquaint the student with the physical, economic, political, and social developments of the United States and to equip him for intelligent active participation in local and national life. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in Political Science 150 or 151 or History 151 or 152. Students with 95 or more credit hours receive only 3 hours credit.

113. World Patterns and World Problems. A general education course designed to bring the student to an understanding of the geographic, economic, and political bases of the present world situation. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit.

114. The Unity of Knowledge. A general education course designed to acquaint the student with the development of philosophical and scientific disciplines in intellectual history, and to equip him to direct his further general education by his awareness of the integrative factors in current education and culture. I, II; 4. Prerequisite: Sophomore standing and a 3.5 average.

116. Family Living. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. I, II; 4. Prerequisite: Sophomore standing or consent of instructor.

Sociology and Anthropology

Sociology

100. Introduction to Sociology. Introductory analysis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. I, II; 3. Prerequisite: Sophomore standing.

130. Society and Individual Development. Nature of person and relation to institutions, social order, and development. I, II, 3. Prerequisite: Sociology 100.

140. Social Control. The methods and techniques of group social control of individuals in small groups, societies, and large publics; the innovations in methods of social control resulting from the development of the new mass media of communication. I, II; 3. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152.

276. Sociology of the City. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. I, II; 3. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

Anthropology

102. Introduction to Anthropolgy: The Origin of Man and Culture. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. I; 3.

103. Introduction to Anthropology: The Growth of Culture. An introduction to and survey of the development of cultures with special attention to invention, diffusion, adaptation, integration, and other processes of cultural growth as illustrated by primitive and native populations of the world. Recommended though not required to be taken with Anthropology 102 as a survey of the field of anthropology. II; 3.

Spanish

101. Elementary Spanish. For students who have no credit in Spanish. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for Spanish 101 without 102.

102. Elementary Spanish. Continuation of Spanish 101. I, II; 4. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish.

103. Intermediate Spanish. Rapid reading, review of grammar, composition, conversation. I, II; 4. Prerequisite: Spanish 102 or two years of high school Spanish.

104. Intermediate Spanish. Continuation of Spanish 103. I, II; 4. Prerequisite: Spanish 103 or three years of high school Spanish.

113. Elementary Composition and Conversation. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. I, II; 2. Prerequisite: Spanish 102 or two years of high school Spanish.

201. Introduction to Spanish Literature. Reading of modern authors of Spain and Spanish America. I; 3. Prerequisite: Spanish 104 or four years of high school Spanish.

202. Introduction to Spanish Literature. Reading of modern authors of Spain and Spanish America. II; 3. Prerequisite: Spanish 201 or consent of instructor.

Speech

101. Principles of Effective Speaking. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. I, II, 3. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: A passing grade in Rhetoric 101 placement examination or a passing grade in Rhetoric 100.

105. Voice and Articulation. A drill course for the improvement of the normal speaking voice. I, II; 2. Students with 95 or more credit hours receive only 1 hour credit.

107. Parliamentary Procedure. Principles and practice of parliamentary procedure. I, II; 2. Students with 95 or more credit hours receive only 1 hour credit.

111. Business and Professional Speaking. Study, preparation, and presentation of the chief types of business speeches, with special attention to conferences, sales talks, interviews, job applications. I, II; 2. Prerequisite: Speech 101; sophomore standing.

117. Argumentation. Methods of logical analysis; the kinds and forms of argument; the adaptation of argumentative materials to audience situations; and the forms of debate. Practice debates on current subjects. I, II; 3. Prerequisite: Speech 101; sophomore standing.

141. Oral Interpretation. Principles of interpretation, analysis, and oral reading of prose literature and verse. I, II; 2. Students with 95 or more credit hours receive only 1 hour credit.

161. Fundamentals of Acting. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. II; 3. Prerequisite: Speech 141.

164. Radio Speaking. Preparation and presentation of the chief types of radio speeches, and of the interview, round table, and discussion; microphone experience. II; 2. Prerequisite: Consent of instructor.

Theoretical and Applied Mechanics

150. Analytical Mechanics (Statics). Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic statics, forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. I, II; 2. Prerequisite: Registration in Mathematics 143.

151. Analytical Mechanics (Statics). Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic statics, moment diagrams, virtual work, forces due to friction centroid. I, II; 3. Prerequisite: Registration in Math. 143.

154. Analytical Mechanics (Statics and Dynamics). A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. I, II; 4. Prerequisite: Registration in Mathematics 143.

156. Analytical Mechanics (Statics and Dynamics). A combination of Theoretical and Applied Mechanics 150 and 211. I, II; 5. Prerequisite: Registration in Mathematics 143.

171. Elements of Mechanics (Statics). Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. I, II; 3. Prerequisite: Mathematics 123.

172. Strength of Materials. Relationships between external forces acting on beams and the stresses produced, shear, moment, slope and deflection diagrams, moment of inertia; columns. For architects only. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 171.

211. Analytical Mechanics (Dynamics). Displacement, velocity, and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, and impulse and momentum. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 150.

221. Resistance of Materials. Relationships between external forces acting on elastic bodies and the stresses and deformations produced; tension and compression members; members subjected to torsion and to bending; columns, combined stresses; properties of materials. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 150, 154, or 156.

223. Resistance of Materials Laboratory. Tests of steel, cast iron, aluminum alloys, concrete, and wood; determination of such mechanical properties as strength, hardness, ductility, energy, resistance, engineering significance of mechanical properties. I, II; 1. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

Calendar

Chicago Undergraduate Division

1957—First Semester

Wed., Sept. 4—Wed., Sept. 11 ..... Orientation Period
Thurs., Sept. 12—Fri., Sept. 13 ..... Registration
Mon., Sept. 16 ..... Instruction Begins
Wed., Nov. 27, 6 p.m. ..... Thanksgiving Vacation Begins
Mon., Dec. 2, 8 a.m. ..... Thanksgiving Vacation Ends
Tues., Dec. 3 ..... Illinois Day (State admitted to the Union, 1818)
Tues., Dec 17, 6 p.m. ..... Christmas Vacation Begins
Thurs., Jan. 2, 8 a.m. ..... Christmas Vacation Ends
Fri., Jan. 17—Sat., Jan. 25 ..... Semester Examinations

1958—Second Semester

Sat., Feb. 1—Wed., Feb. 5 ..... Orientation Period
Thurs., Feb. 6—Fri., Feb. 7 ..... Registration
Mon., Feb. 10 ..... Instruction Begins
Sun., Mar. 2 ..... University Day (University opened, 1868)
Thurs., Apr. 3, 6 p.m. ..... Easter Vacation Begins
Wed., Apr. 9, 8 a.m. ..... Easter Vacation Ends
Fri., May 9 ..... Honors Day
Fri. May 30 ..... Memorial Day
Thurs., May 29—Sat., June 7 ..... Semester Examinations

Summer Session 1958

Fri., June 20 ..... Registration
Mon., June 23 ..... Instruction Begins
Fri., July 4 ..... Independence Day
Fri., Aug. 15—Sat., Aug. 16 ..... Summer Session Examinations

Board of Trustees

UNIVERSITY OF ILLINOIS

Members Ex-Officio

WILLIAM G. STRATTON, Governor of Illinois.....Springfield
VERNON L. NICKELL, Superintendent of Public Instruction.....Springfield

Elected Members

Term 1953-1959

CUSHMAN B. BISSELL.....135 S. LaSalle St., Chicago 3
MRS. DORIS S. HOLT.....330 E. Sixth St., Flora
PARK LIVINGSTON.....3600 N. River Rd., Franklin Park

Term 1955-1961

WIRT HERRICK.....120½ E. Main St., Clinton
MRS. FRANCES B. WATKINS.....5831 S. Blackstone Ave., Chicago 37
KENNEY W. WILLIAMSON.....Sixth Floor, Lehmann Building, Peoria 2

Term 1957-1963

WAYNE A. JOHNSTON.....135 E. Eleventh Place, Chicago 5
EARL M. HUGHES.....Hughes Farms, Route 1, Woodstock
TIMOTHY W. SWAIN.....912 Central National Bank Building, Peoria 2

Officers of the Board

PARK LIVINGSTON, President.....Franklin Park
ANTHONY J. JANATA, Secretary.....Urbana
CLARENCE W. WELDON.....Chicago 90
HERBERT O. FARBER, Comptroller.....Urbana

Committee on the Chicago Departments

MRS. FRANCES B. WATKINS, Chairman, CUSHMAN B. BISSELL,
TIMOTHY W. SWAIN.

Administrative Officers

Urbana

David Dodds Henry.....President
Gordon N. Ray.....Provost
Charles Wilson Sanford.....Dean of Admissions

Chicago Undergraduate Division

Charles C. Caveny.....Dean
Harold N. Cooley.....Assistant to the Dean
Robert P. Hackett.....Associate Dean
Commerce and Business Administration
William J. Dunne.....Assistant Dean
Commerce and Business Administration
Frederick W. Trezise.....Associate Dean
Engineering Sciences
Rupert M. Price.....Assistant Dean
Engineering Sciences
Harold W. Bailey.....Associate Dean
Liberal Arts and Sciences
Arthur D. Pickett.....Assistant Dean
Liberal Arts and Sciences
Willis C. Jackman.....Assistant Dean
Liberal Arts and Sciences
John O. Jones.....Director, Physical Education and Athletics
Warren O. Brown.....Associate Dean of Students
Veterans Counselor
Ann Bromley.....Dean of Women
Harold E. Temmer.....Examiner and Recorder
Paul C. Greene.....Director, Student Counseling Service
Earl B. Erskine, M. D.....Director, Health Service
Edward M. Heiliger.....Librarian
Robert L. Zander.....Assistant Superintendent
of Buildings and Grounds
Robert E. Porter.....Assistant to the Business Manager
John H. Worthington.....Manager, Public Information
Zan Skolnick.....Assistant Manager, Public Information
Leonard D. Harper.....Personnel Officer
Merton S. Zahrt.....Assistant to the Dean of Men
and Band Director

CHICAGO UNDERGRADUATE DIVISION
1956-57

PROFESSORS

Bailey, Harold W., Ph.D., LL.D., Professor of Mathematics and Associate Dean of Liberal Arts and Sciences

Barber, Hollis W., Ph.D., Professor of Political Science (on leave of absence)

Carlson, Clarence I., B.S., Professor of General Engineering and Head of the Department of General Engineering

Caveny, Charles C., Dean of the Undergraduate Division in Chicago, with the rank of Professor

Cutshall, Alden D., Ph.D., Professor of Social Sciences

Erskine, Earl B., M.D., Professor of Hygiene and Director of Health Service

Hackett, Robert P., Ph.D., Professor of Accountancy and Associate Dean of Commerce and Business Administration

Jones, John O., M.S., Professor of Physical Education for Men and Director of Physical Education and Athletics

McEldowney, Harold B., B.S., Professor of Architecture and Head of the Department of Architecture and Art

Meloy, Carl R., Ph.D., Professor of Physical Sciences and Head of the Division of Physical Sciences

Nowlan, Frederick S., Ph.D., Professor of Mathematics, *Emeritus*

Railsback, Ora L., Ph.D., Professor of Physics and Head of the Department of Physics

Riddle, Donald W., Ph.D., Professor of Social Sciences and Head of the Division of Social Sciences

Trezise, Frederick W., C.E., M.S., Professor of Engineering and Associate Dean of Engineering

Vest, Eugene B., Ph.D., Professor of English and Head of the Division of Humanities

ASSOCIATE PROFESSORS

Babler, Bernard J., Ph.D., Associate Professor of Physical Sciences

Barton, Helen M., Ed.D., Associate Professor of Physical Education for Women and Head of the Department of Physical Education for Women

Cobb, Arnold C., M.S., Associate Professor of Theoretical and Applied Mechanics

Crum, Ferris B., Ph.D., Associate Professor of Physical Sciences

DeFilipps, Anthony J., B.S., Associate Professor of Architecture

Derrick, Lucile, Ph.D., Associate Professor of Economics

Fox, Samuel, M.B.A., J.D., L.L.M., Ph.D., Associate Professor of Accountancy

Frank, Evelyn, Ph.D., Associate Professor of Mathematics

Gillett, Clarence H., Ph.D., Associate Professor of Economics

Goppert, Harold H., M.S., Associate Professor of General Engineering
Grampp, William D., Ph.D., Associate Professor of Economics
Greene, Paul C., Ph.D., Associate Professor of Psychology and Director and Counselor in the Student Counseling Service
Hartley, Miles C., Ph.D., Associate Professor of Mathematics and Head of the Division of Mathematics
Heiliger, Edward M., B.S. in L.S., M.A., Associate Professor of Library Science and Librarian
Huitema, Roy, Ph.D., Associate Professor of Physical Sciences
Karpinski, Robert W., D.Sc., Associate Professor of Physical Sciences
Klassen, Peter P., Ph.D., Associate Professor of Social Sciences
Kozacka, Joseph S., Associate Professor of Mechanical Engineering, *Emeritus.*
Lipman, Eli A., Ph.D., Associate Professor of Psychology
McClenahan, Frank C., B.S., Associate Professor of Military Science and Tactics
McNee, John D., Jr., A.M., Associate Professor of Art
Morris, Daniel J., Ph.D., Associate Professor of Social Sciences
Nicholson, Robert L., Ph.D., Associate Professor of Social Sciences
Perkins, Roy B., M.S., Associate Professor of Mechanical Engineering and Head of Engineering Shop Laboratories
Pickett, Arthur D., Ph.D., Associate Professor of Biological Sciences and Assistant Dean of Liberal Arts and Sciences
Price, Rupert M., M.S., Associate Professor of Physics and Assistant Dean of Engineering
Richardson, John F., M.A., Associate Professor of Art
Ricks, Victor E., Ph.D., Associate Professor of Education and Teacher Education Advisor
Rouffa, Albert S., Ph.D., Associate Professor of Biological Sciences
Sangster, William, Ph.D., Associate Professor of Biological Sciences
Sanchez, Jose, Ph.D., Associate Professor of Foreign Languages (on leave of absence)
Schroeder, Roy W., Associate Professor of Foundry and Pattern Design
Schuyler, William M., Ph.D., Associate Professor of Foreign Languages
Shapiro, Samuel E., B.S., Associate Professor of General Engineering
Shopen, Kenneth, B.A., Associate Professor of Art
Thompson, Wayne N., Ph.D., Associate Professor of Speech, Head of Speech Staff and Director of Forensics
Vardaman, Mrs. Hazel C., Ph.D., Associate Professor of Foreign Languages
Walraven, H. Dale, A.M., Associate Professor of General Engineering

ASSISTANT PROFESSORS

Anderson, LeMoyne W., B.S. in L.S., M.S., Assistant Professor of Library Science and Acting Reference Librarian
Anderson, William R., M.S., Assistant Professor of Physics
Andrews, Daniel K., Ph.D., Assistant Professor of Accountancy
Bachrach, Joseph, Ph.D., Assistant Professor of Physical Sciences
Berrafato, Peter R., M.S., Assistant Professor of Physical Education for Men and Director of Intramural Athletics
Bill, Mrs. Shirley A., Ph.D., Assistant Professor of Social Sciences

Blum, Irving D., Ph.D., Assistant Professor of English
Burr, Edward E., B.F.A., Assistant Professor of Art
Coe, Edward H., B.S., C.E., Assistant Professor of Civil Engineering
Corley, Robert E., Ph.D., Assistant Professor of Social Sciences
Cramer, Glenn E., B.S., Assistant Professor of General Engineering
Curtis, Herbert J., Ph.D., Assistant Professor of Mathematics
DeRoche, Major John E., B.A., Assistant Professor of Military Science and Tactics
DeYoung, Charles D., M.A. in L.S., M.S., Assistant Professor of Library Science and Circulation Librarian
Dinkines, Flora, Ph.D., Assistant Professor of Mathematics
Dutton, Eugene, Ph. D., Assistant Professor of Psychology and Associate Director of the Student Counseling Service
Eells, Kenneth W., Ph.D., Assistant Professor of Psychology and Counselor in the Student Counseling Service
Endelman, Robert, Ph.D., Assistant Professor of Social Sciences
Feinstein, Irwin K., Ph.D., Assistant Professor of Mathematics
Fordham, Sheldon L., M.S., Assistant Professor of Physical Education and Track and Cross Country Coach
Frey, Harold J., M.S., Assistant Professor of Physical Education for Men and Gymnastics and Soccer Coach
Frommherz, Carl J., B.S. in L.S., Assistant Professor of Library Science and Catalog Librarian
Fuller, John B., Ph.D., Assistant Professor of Foreign Languages, *Emeritus*
Gabis, Stanley T., M.A., Assistant Professor of Social Sciences
Gedvilas, Leo L., M.S., Assistant Professor of Physical Education for Men and Basketball Coach
Glassman, Sidney F., Ph.D., Assistant Professor of Biological Sciences
Gum, Wanda N., Ed.D., Assistant Professor of Social Sciences (on leave of absence)
Hartoch, Arnold J., Ph.D., Assistant Professor of Foreign Languages
Holladay, Mrs. Dee M., A.B., B.S., Assistant Professor of General Engineering
Howard, Allen H., Ph.D., Assistant Professor of Psychology
Huff, William H., A.M. in L.S., Assistant Professor of Library Science and Serials and Acquisitions Librarian
Hunt, Charles K., Ph.D., Assistant Professor of Physical Sciences
ohnson, Falk S., Ph.D., Assistant Professor of English
ones, Stanley L., Ph.D., Assistant Professor of Social Sciences
ordan, Mrs. Moreen C., Ph.D., Assistant Professor of English
abbes, S. Madonna, M.B.A., C.P.A., Assistant Professor of Accountancy
aranikas, Alexander, Ph.D., Assistant Professor of English
auf, Robert, Ph.D., Assistant Professor of Foreign Languages
ell, Bill L., Ph.D., Assistant Professor of Psychology and Counselor in the Student Counseling Service
enny, Mrs. Anna W., Ph.D., Assistant Professor of English
nudson, Edward C., M.B.A., Assistant Professor of Economics
ogan, Bernard R., Ph.D., Assistant Professor of English
ohler, Richard C., Ed.D., Assistant Professor of General Engineering

Kostka, Helen M., M.D., Assistant Professor of Hygiene
Lein, Marie E., Ph.D., Assistant Professor of Foreign Languages (on leave of absence)
Leonard, Zelma B., Ph.D., Assistant Professor of English
Lindsay, Ronald J., M.D., Assistant Professor of Hygiene
Little, Ellis, Ph.D., Assistant Professor of Biological Sciences
Madison, Kenneth M., Ph.D., Assistant Professor of Biological Sciences
Mansfield, Joseph V., Ph.D., Assistant Professor of Physical Sciences
Marsh, John O., Jr., Ph.D., Assistant Professor of Foreign Languages
McNeil, Edward B., Ph.D., Assistant Professor of Physics
Miller, Lester H., M.A., Assistant Professor of Physical Education for Men and Baseball Coach
Mikolajczyk, Henry L., A.M., Assistant Professor of Architecture and Associate Architect
Mueller, Hans J., Ph.D., Assistant Professor of Physical Sciences
Nicholas, Constance, Ph.D., Assistant Professor of English
Pennisi, Louis L., Ph.D., Assistant Professor of Mathematics
Perry, J. Warren, Ph.D., Assistant Professor of Psychology and Counselor in the Student Counseling Service
Pitt, Carl A., Ph.D., Assistant Professor of Speech
Radice, Canio, M.A., Assistant Professor of Art
Rathbun, Rowland, M.S., Assistant Professor of Architecture
Reid, H. Gordon, M.D., Assistant Professor of Hygiene
Rheumer, George A., Ph.D., Assistant Professor of Social Sciences
Runyan, Harry J., Ph.D., Assistant Professor of English
Schiller, Andrew, Ph.D., Assistant Professor of English
Schneider, Albert J., M.B.A., C.P.A., Assistant Professor of Accountancy
Schrage, Samuel, Ph.D., Assistant Professor of Physical Sciences
Schroeder, Fred W., M.S., Assistant Professor of General Engineering
Shank, Max C., Ph.D., Assistant Professor of Biological Sciences
Shaw, Fayette B., Ph.D., Assistant Professor of Economics
Skadeland, Harold M., M.A., Assistant Professor of Physics
Unfer, Louis, Ph.D., Assistant Professor of Social Sciences
Walley, John E., Assistant Professor of Architecture
Weldon, John W., Ph.D., Assistant Professor of Physical Sciences
Weissman, Herman, M.S., Assistant Professor of Physics
White, Lester D., Assistant Professor of Architecture
Willner, Ernest S., Ph.D., Assistant Professor of Foreign Languages
Wright, Mrs. Elizabeth V., Ph.D., Assistant Professor of English

VISITING LECTURERS

Flys, Jaroslaw M., Ph.D., Visiting Lecturer in Foreign Languages
Wiesinger, Frederick P., A.E., Visiting Lecturer in Engineering

INSTRUCTORS

Alberti, Furio, M.S., C.M.S., Instructor in Mathematics
Atwood, Norman R., M.A., Instructor in English
Ballard, Mrs. Ruth M., Ph.D., Instructor in Mathematics
Berglund, Winifred V., M.A., Instructor in Mathematics
Blair, Leon N., B.S., Instructor in General Engineering
Braunfeld, Mrs. Johanna, M.A., Instructor in Foreign Languages

Caldario, Edward J., B.S., Instructor in General Engineering
Carbonaro, Lynn M., M.S., Instructor in Physical Sciences
Carlson, Mrs. Kathryn H., M.A., Instructor in English
Cassell, Robert L., M.A., Instructor in English
Colby, Mrs. Mary M., M.S., Instructor in Social Sciences
Cowin, John W., M.A., Instructor in Physical Sciences
Cowles, Harriet E., A.M., Instructor in Foreign Languages
Crawley, Derek F., M.A., Instructor in English
Creaser, James W., M.A., Instructor in Psychology and Counselor in the Student Counseling Service
Crews, Mrs. Janice M., A.M., Instructor in Speech
Davis, Russell E., B.S. in L.S., M.A., Instructor in Library Science and Assistant Serials and Acquisitions Librarian
Dembski, Marion V. J., M.A., Instructor in General Engineering
Dembski, William J., M.Ed., M.S., Instructor in Biological Sciences
Dunne, William J., M.B.A., Instructor in Economics and Assistant Dean of Commerce
Egbert, Leslie F., M.S., Instructor in Physical Sciences
Evans, Lenore E., M.A., Instructor in Speech
Fabian, Samuel A., B.S., Instructor in Physical Sciences
Farag, Shafeek, M.A., Instructor in Physical Sciences
Ferrer, Mrs. Kathleen M., A.B., B.S. in L.S., Instructor in Library Science and Assistant Reference Librarian
Finney, Mrs. Mildred I., A.M., Instructor in Social Sciences
Frankel, Hyman H., Ph.D., Instructor in Social Sciences
Freyer, Warren R., A.M., Instructor in English
Gallagher, Mrs. Mary T., A.M., Instructor in English
Geldard, Mrs. Winifred B., M.A., Instructor in Economics
Glicklich, Mrs. Lucille B., M.D., Instructor in Hygiene
Ginzel, Roland F., M.F.A., Instructor in Art
Goodman, Gordon L., Ph.D., Instructor in Social Sciences
Gordon, Louis I., M.S., Instructor in Mathematics
Gottlieb, Anatol, T. Sc. D., Instructor in Physical Sciences
Goulson, Mrs. Frances M., M.T.A., Instructor in Speech and Director of Dramatics
Greenwald, Arthur L., M.A., Instructor in English
Griest, Guinevere L., A.M., Instructor in English
Hart, Mrs. Jeannette Z., M.S., Instructor in Physical Sciences
Hasan, Mazhar, M.S., Instructor in Physics
Hedish, Norman D., M.A., Instructor in Accountancy
Heftel, Daniel L., M.A., Instructor in Psychology and Counselor in the Student Counseling Service
Hegie, Mrs. Lucy, M.A., Instructor in English
Heller, Sabine A., M.S., Instructor in Physical Sciences
Hilker, Gloria (Mrs. William A Taylor), M.D., Instructor in Hygiene
Hill, Roger G., B.A., Instructor in Mathematics
Hipple, Mrs. Eleanor, A.M., Instructor in English
Hoskins, Conde R., M.A., Instructor in Speech
Hovde, Helen J., M.A., Instructor in Speech
Israel, Thomas A., M.A., Instructor in Social Sciences

Iverson, Mrs. Alice F., M.S., Instructor in Mathematics
Jackman, Willis C., M.A., Instructor in English and Assistant Dean of Liberal Arts and Sciences
Johnson, Herman J., M.S., Instructor in Physics
Johnson, John C., M.A., Instructor in English
Jung, Allen F., M.B.A., Instructor in Economics and Staff Counselor in the Student Counseling Service
Kaucki, Eugene F., M.A., Instructor in Economics
Kerwick, Mrs. Marion S., M.A., Instructor in English
Kester, Martha, M.S., in L.S., Instructor in Library Science and Assistant Catalog Librarian
Kirstein, Laurette A., M.A., Instructor in English and Staff Counselor in the Student Counseling Service
Kirtner, Mrs. Sophie L., M.A., Instructor in Psychology and Counselor in the Student Counseling Service
Klapperich, Alfred J., B.S., Instructor in Electrical Engineering
Kristufek, Charles J., M.S., Instructor in Physical Education for Men and Swimming and Tennis Coach
Kurs, Louis N., M.S., Instructor in Physical Sciences
Lariviere, Rose, M.A., Instructor in Mathematics
Larson, Carl M., M.B.A., Instructor in Economics
Lenihan, Mrs. Marion C., M.A., Instructor in Foreign Languages
Lestina, Gregory J., Ph.D., Instructor in Physical Sciences
Liang, Milly C. (Mrs. Chi Kong Liu), M.D., Instructor in Hygiene
Linde, Richard, M.Ed., Instructor in Accountancy
Lipkin, Lawrence, B.S., C.P.A., Instructor in Accountancy
Livermore, Ogden, M.A., Instructor in Physics
Love, Mrs. W. Nell, A.M., Instructor in English
Lyon, Mary, M.D., Instructor in Hygiene
Mabilangan, Luis M., M.D., Instructor in Hygiene
Mackin, John H., A.M., Instructor in English
Malinosky, Alfonse T., B.S., Instructor in Accountancy
Mann, William C., M.S., Instructor in Physical Education for Men, Trainer and Wrestling Coach
Masterton, Don A., M.S., Instructor in Architecture
Merten, Horace G., B.S., Instructor in English, *Emeritus*
Meyer, John H., A.M., Instructor in Foreign Languages
Miller, Irving M., M.A., Instructor in English
Miller, Oscar, M.A., Instructor in Economics
Miller, Robert L., M.S., Instructor in Physical Sciences
Miller, Sonia, A.M., Instructor in English
Minkler, Marcus W., M.S., Instructor in Physics
Montcalm, M.A., Instructor in Physical Education for Men and Assistant Football Coach
Morris, James R., M.B.A., Instructor in Economics
Morse, Josephine, Ph.D., Instructor in Psychology and Counselor in the Student Counseling Service
Mosillo, Francis A., B.S., Instructor in General Engineering
Murphy, Kenneth H., M.S., Instructor in Mathematics
Nolan, Grace M., M.A., Instructor in Mathematics

Ockert, John D., M.S., Instructor in Mathematics
Oleksy, Mrs. Margaret H., M.A., Instructor in English
Olsen, Charles E., B.S., Instructor in Mathematics
Ondrak, Thomas B., M.S., Instructor in Mathematics
O'Neill, M/Sgt. Thomas M., Instructor in Military Science and Tactics
Pabarcius, Algis, B.S., Instructor in Civil Engineering
Page, Robert R., A.M., Instructor in Social Sciences
Parthasarathy, Mandyan D., M.Sc., Instructor in Biological Sciences
Patlogan, Mrs. Sylvia, M.A., Instructor in Foreign Languages
Perez, Isidro L., M.D., Instructor in Hygiene
Perry, Clarence J., M.Ed., Instructor in Physical Sciences
Pesavento, Mrs. Wilma J., B.S., Instructor in Physical Education for Women and Counselor in the Student Counseling Service
Polli, John F., Ph.D., Instructor in Physical Sciences
Potempa, Sylvester J., M.S., Instructor in Physical Sciences
Presley, Halina J., M.S., Instructor in Biological Sciences
Prun, M/Sgt. Al A., Instructor in Military Science and Tactics
Rader, Richard R., M.A., Instructor in Physical Education for Men, Golf Coach, and Assistant Basketball Coach
Ragland, George C., M.S., Instructor in Mathematics
Reinsberg, Mark S., M.A., Instructor in English
Richey, M. June, M.A., Instructor in English
Rietz, Edward G., B.A., Instructor in Physical Sciences
Rigler, Matthew L., M.S., Instructor in Speech and Head of Speech Clinic
Royster, Richard S., M.A., Instructor in General Engineering
Rudin, Cecilia M., M.A., Instructor in English
Sachs, Lester M., M.S., Instructor in Physics
Sackheim, George I., M.A., M.S., Instructor in Physical Sciences
Savoy, Michael G., M.S., Instructor in Physical Sciences
Scholomiti, Nicholas C., A.M., Instructor in Mathematics
Sears, Mrs. Helen W., M.A., Instructor in Mathematics
Seabright, Mrs. Frances K., M.S., Instructor in Physical Sciences
Setton, Henry A., B.S., Instructor in General Engineering
Shomay, David, Ph.D., Instructor in Biological Sciences
Silkett, Albert F., A.B., Instructor in Physics
Simkovits, Theodora, Ph.D., Instructor in Physics
Skogen, Mrs. Clara S., M.A., Instructor in Foreign Languages
Spies, Harold W., M.D., Instructor in Hygiene
Spirakis, Charles N., A.M., Instructor in Biological Sicences
Stableford, Nancy, M.F.A., Instructor in Art
Stanley, William J., B.S., Instructor in Shop Laboratories
Stelling, Mrs. Lois B., M.A., Instructor in Mathematics
Stronks, James B., Ph.D., Instructor in English
Sullivan, Bernadette M., A.B. in L.S., Instructor in Library Science and Assistant Reference Librarian
Tamblingson, Roy E., B.E., Instructor in Shop Laboratories
Teichmann, Mrs. Elizabeth, M.A., Instructor in Foreign Languages
Timmis, Beatrice (Mrs. James B. Miller), M.A., Instructor in English

Tort, Mrs. Ferdina J., M.A., Instructor in Foreign Languages
Tourk, Mrs. Vincetta, M.S., Instructor in Physics
Trevino, L. H., M.D., Instructor in Hygiene
Tsao, Peter, M.S., Instructor in Physics
Tyroler, Robert L., S.M., Instructor in Social Sciences
Vedral, Mrs. Rose L., M.A., Instructor in Mathematics
Versen, Walter G., Ed.M., Instructor in Physical Education for Men and Head Football Coach
Viviano, Joseph W., M.S. in L.S., Instructor in Library Science and Fine Arts Librarian
Waller, Frederick O., M.A., Instructor in English
Wigert, Albert, B.S., Instructor in General Engineering
Wiley, Rosemary F., A.M., Instructor in Mathematics
Willett, Maurita F., M.A., Instructor in English
Williams, Henry F., M.A., Instructor in Economics
Wood, Mrs. Kathryn M., M.A., Instructor in Physics
Yasnoff, Mrs. Doris E., Ph.D., Instructor in Physical Sciences
Yokoyama, Katsuyuki, Ph.D., Instructor in Biological Sciences

ASSISTANTS

Allen, Louise, B.A., Assistant in Social Sciences
Anzalone, Charlene B., A.B., B.S., Assistant in Physical Education for Women
Barker, Jack T., S.M., Assistant in Physical Sciences
Bedard, Irvin E., B.S., Assistant in Physical Education and Assistant Gymnastics Coach
Bergum, Bruce O., M.S., Assistant in Social Sciences
Bouc, Charles A., B.A., Assistant in General Engineering
Chapp, Donald F., M.S., Assistant in Biological Sciences
Cox, F. Gaylord, M.A., Assistant in English
Cullen, Theodore J., M.S., Assistant in Mathematics
Dafler, James R., B.A., Assistant in Physical Sciences
DeMar, Robert E., A.B., Assistant in Physical Sciences
Egbert, Leslie F., M.S., Assistant in Physical Sciences
Fabian, Samuel A., B.S., Assistant in Physical Sciences
Friend, James, M.A., Assistant in English
Glasel, Jay A., B.A., Assistant in Physical Sciences
Graff, James F., M.B.A., Assistant in Accountancy
Helmer, Mrs. Lorraine R., M.A., Assistant in English
Johnson, Marie L., M.A., Assistant Psychometrist in the Student Counseling Service
Johnson, Robert E., B.A., Assistant in Physical Sciences
Kent, Robert R., B.S., Assistant in Physical Education for Men
Kloppenburg, Jo Anne, M.A., Assistant in English
Kuzmanic, Mrs. Betty W., M.Ed., Assistant in Mathematics
Liu, Yung-Szi Frances, Ph.D., Psychometrist in the Student Counseling Service
Lothian, Thomas A., B.S., Assistant in Physical Sciences
Lumley, Mrs. Jeannette S., M.A., Assistant in Mathematics
Macdonald, Mrs. Livia R., M.A., Assistant in Foreign Languages

McNamara, Eugene J., M.A., Assistant in English
Mertz, Annelise, B.A., Assistant in Physical Education for Women
Mohrbacher, John W., M.A., Assistant in Social Sciences
Prasher, Mrs. A. LaVonne, M.A., Assistant in English
Schonfield, Jacob, M.A., Assistant in Social Sciences
Scudder, Charles L., M.S., Assistant in Biological Sciences
Sjoblom, Laurence R., B.S.E.E., Assistant in Mathematics
Star, Morris, M.A., Assistant in English
Stearns, Carole M., B.S., Assistant in Physical Sciences
Strnad, George J., B.S., Assistant in Physical Education for Men and Assistant Football Coach
Thompson, James L., B.S., Assistant in Physical Education for Men and Assistant Football Coach
Wawrinecz, Ruth G., B.S., Assistant in Physical Education for Women
Ziomek, Leo F., M.S., Assistant in Mathematics

Index

Academic personnel, 83
Accountancy course, 61
Activities, extra-curricular, 26, 27
  Student fee, 15, 16
Administrative officers, 82
Admission, 6
  Examinations, 14
  Requirements, 7
    High school graduates, 6
    Non-resident students, 11
    Special scholastic requirements, 11
    Subjects for specific college and curricula, 13
    Transfer students, 10
Aeronautical engineering, curriculum, 40
Anthropology courses, 76
Architectural engineering, curriculum, 45
Architecture and art, 43, 44
  Architecture courses, 61
  Art courses, 61, 62
  Curriculum, 44, 45
  Electives, 44
Army Reserve Officers' Training corps, 58, 59
  Courses, 71
Athletics, 28, 29

Biological sciences courses, 62, 63
Board of Trustees, 81
Bookstore, 30
Business law course, 63
Calendar, 80
Ceramic engineering curriculum, 40
Chemical engineering, curriculum, 50, 51
Chemistry courses, 63, 64
  Curriculum,50
Chicago Departments Committee, 81
Civil engineering, courses, 64, 65
  Curriculum, 40, 41
Commerce and Business Administration, College of, 33
  Commerce and law, 35
  Commercial teaching, 35
  Electives, 34, 35
  Pre-journalism, 35
  Requirements for all commerce students, 35, 36
  Requirements for graduation, 34
Courses of instruction, 61
  Required of all students, 32

Dean of Men, 24
Dean of Students, 23, 24
Dean of Women, 24, 25
Debating, 27, 28
Dentistry, pre-dental curriculum, 54

Economics courses, 65
Education courses, 65
Electives, architecture, 44
  Commerce, 34, 35
Electrical engineering courses, 66
  Curriculum, 41
Employment, student, 25
Engineering, College of, 37
  Aeronautical, 40
  Ceramic, 40
  Civil, 40, 41
  Common program for freshmen, 40
  Electrical, 41
  Engineering physics, 41
  General engineering, 42
  Industrial, 42
  Mechanical, 42

Metallurgical, 43
Requirements for graduation, 38, 39
Engineering physics, curriculum, 41
English courses, 66
Examinations, entrance, 14
General education development, 14, 15
Extra-curricular activities, 26, 27
Athletics, 28, 29
Debating, 27, 28

Fees, see tuition and fees
Food service, 31
French courses, 66, 67
General Engineering courses, 67
Curriculum, 42
Geography courses, 67
Geology courses, 68
German courses, 68
Grading system, 32, 33

Health service, 32
High School graduates, admission, 6
History courses, 68, 69
Home economics curriculum, 55
Hospital and medical service, 25, 26
Humanities courses, 69
Hygiene courses, 69, 70

Industrial engineering, curriculum, 42

Journalism and Communications, pre-journalism curriculum, 35, 56

Law, pre-law curriculum, 35, 55
Liberal Arts and Sciences, College of, 45, 46

Chemistry and chemical engineering, 50, 51
Continuation program in nursing, 53
Requirements for admission, 53
Graduation, 53
General curriculum, 46
Home economics, 55
Physics, 51, 52
Pre-dental, 54
Pre-journalism, 56
Pre-law, 55
Pre-medical, 52, 53
Nursing, 53
Pre-veterinary medicine, 54
Required subjects, 48
Requirements for graduation, 46, 47
Teacher education, 55
Library, 29, 30
Loan funds, 25

Management course, 70
Marketing course, 70
Mathematics courses, 70, 71
Mechanical engineering courses, 71
Curriculum, 42
Medicine, pre-medical curriculum, 52, 53
Metallurgical engineering, curriculum, 43
Military science and tactics courses, 71
Miscellaneous fees, 17

Non-resident students, admission, 11
Nursing, 53
Continuation program, 53

Philosophy courses, 72

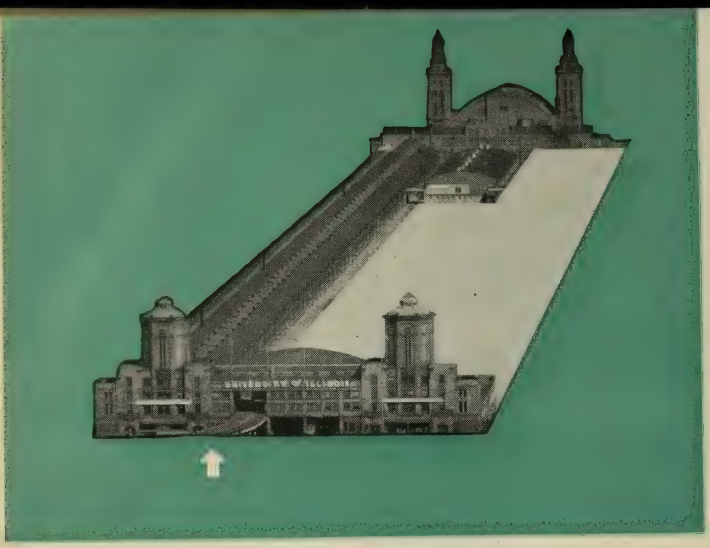
Physical Education, School of, 56, 57
Courses, 72, 73
Physical science courses, 74
Physics courses, 74
Political science courses, 74, 75
Psychology courses, 75

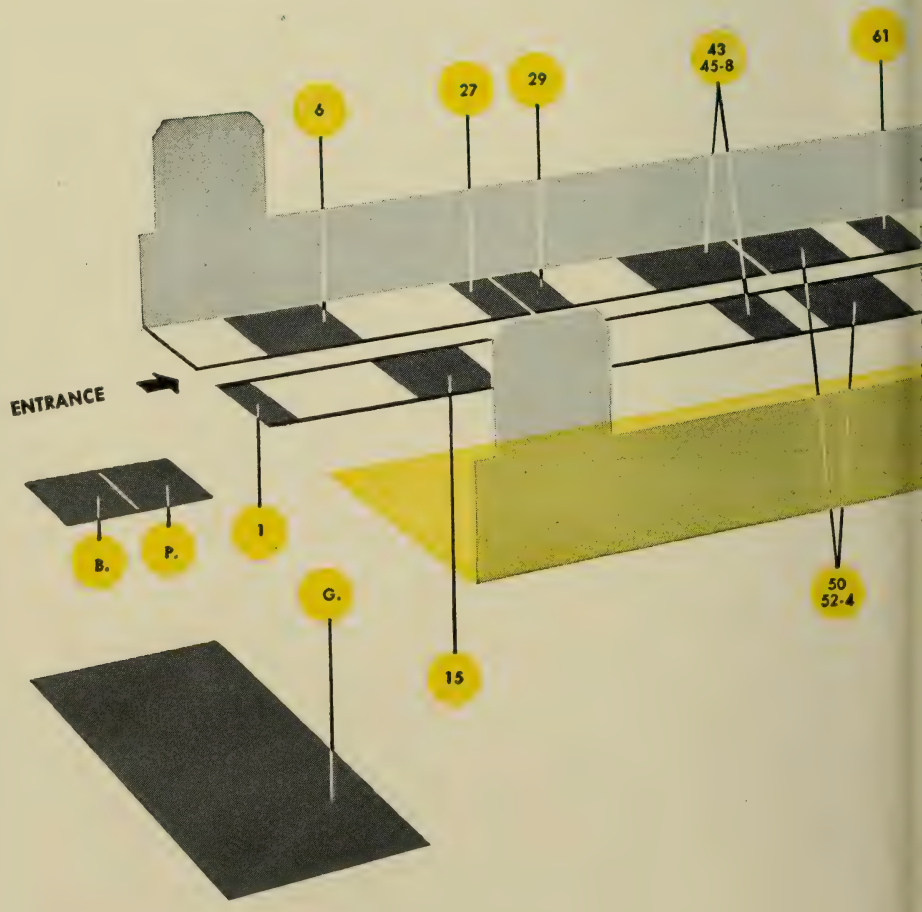
Refunds of fees, 16, 17
Rhetoric courses, 75

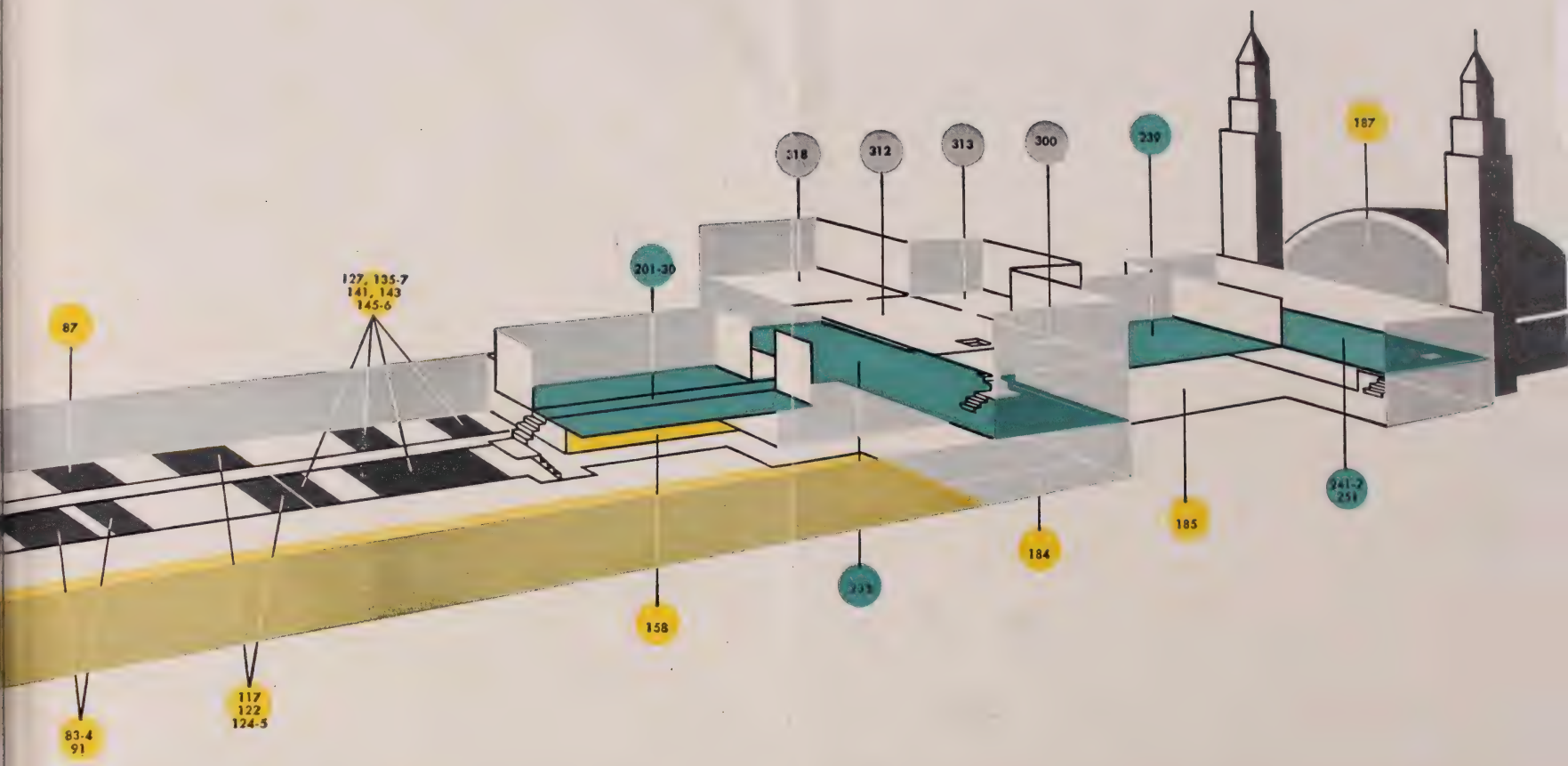
Scholarships, 20
Selective Service deferment, 20
Semester fees, 15, 16
Social Science courses, 75, 76
Sociology courses, 76
Spanish courses, 76, 77
Special scholastic requirements, admission, 11-13
Speech Clinic, 23
Speech courses, 77
Student Counseling Service, 21-23
Student Welfare, 21-26
Dean of Men, 24
Dean of Students, 23, 24
Dean of Women, 24, 25
Hospital and medical service, 25
Loan funds, 25
Speech Clinic, 23
Student Counseling Service, 21-23
Student Employment, 25
Subjects required for specific college and curricula, 13
Summer session fees, 16

Teacher Education, curriculum, 55
Theoretical and Applied Mechanics courses, 77, 78
Transfer students, admission, 10
Tuition and fees, 15, 16
Miscellaneous fees, 17
Refunds, 16, 17
Semester fees, 15
Summer session fees, 16

Veterans information, 17-20
Veterinary medicine, pre-veterinary medicine curriculum, 54




6
27
29
43
45-8
61
ENTRANCE
B.
P.
1
G.
15
50
52-4



ROOM NUMBERS OF DEPARTMENTS AND POINTS OF INTEREST

- B. RESERVE BOOK SECTION
- P. POLICE HEADQUARTERS
- G. MEN'S GYM
- 1 INFORMATION DESK
- 6 SNACK BAR AND LOUNGE
- 15 ADMISSIONS AND RECORDS OFFICE
- 27 ASSOC. DEAN OF COMMERCE
- 29 ASSOC. DEAN OF L. A. & S.
- 43, 45-8 BIOLOGICAL SCIENCES LABORATORIES
- 50, 52-4 CHEMISTRY LABORATORIES
- 61 CONCRETE TESTING LABORATORY
- 64 MACHINE SHOP
- 70-1, 77 WELDING LABORATORY, FOUNDRY, SAND TESTING LABORATORY
- 83-4, 91 ART ROOMS
- 87 BOOKSTORE
- 117, 122, 124-5 PHYSICS LABORATORIES
- 127, 135-7, 141, 143, 145-6 GENERAL ENGINEERING DRAWING
- 158 PHYSICAL PLANT
- 184 ASSOC. DEAN OF ENGINEERING
- 185 STUDENT CAFETERIA
- 187 AUDITORIUM AND WOMEN'S GYM
- 201-30 LECTURE ROOMS AND CLASSROOMS
- 233 LOUNGE
- 239 LIBRARY
- 241-7, 251 ARCHITECTURE ROOMS
- 300 STUDENT COUNSELING BUREAU
- 312 LOUNGE
- 313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN
- 318 HEALTH SERVICE

UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

Chicago Professional Colleges

TRANSPORTATION

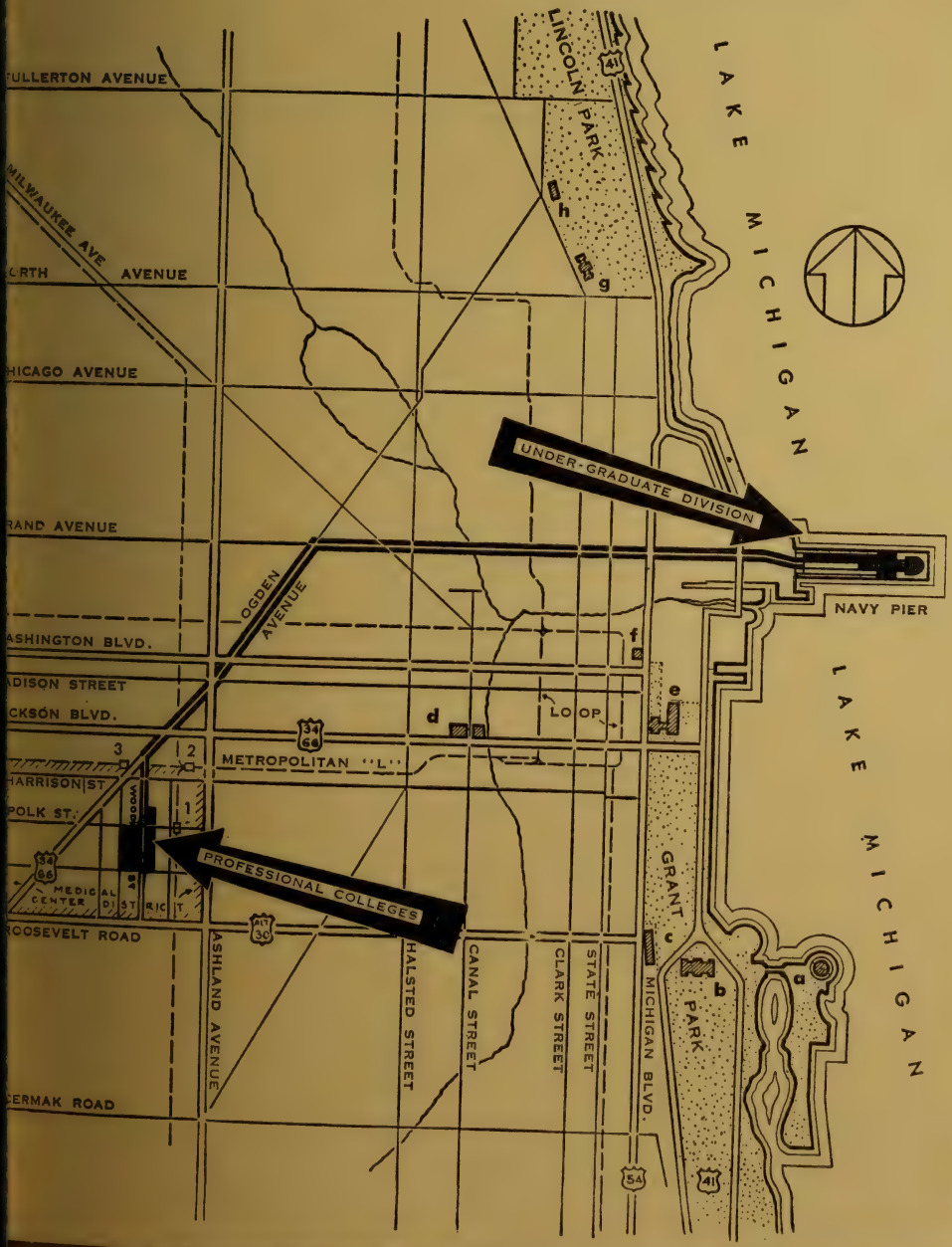
FEEDER BUS POLK AND WOOD STREETS, TRANSFER GRAND AVE. STREET CAR.

STREET CAR ASHLAND CAR ON PAULINA STREET, TRANSFER GRAND AVENUE.

"L" STATIONS 1-POLK STREET 2-MARSHFIELD 3-OGDEN AVENUE, ALL TRAINS TO LOOP, TRANSFER STONY ISLAND STREET CAR.

LEGEND

a ADLER PLANETARIUM
b CHICAGO NATURAL HISTORY MUSEUM
c ILLINOIS CENTRAL R.R. STATION
d UNION R.R. STATION
e ART INSTITUTE
f CRERAR LIBRARY
g CHICAGO HISTORICAL SOCIETY
h CHICAGO ACADEMY OF SCIENCES



C
IZu3Ic
1958/59
cop. 2

1958
1959

NOV 12 '59

CATALOG

UNIVERSITY OF ILLINOIS

CHICAGO UNDERGRADUATE DIVISION

UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

Chicago Professional Colleges

PUBLIC TRANSPORTATION

TO CHICAGO UNDERGRADUATE DIVISION

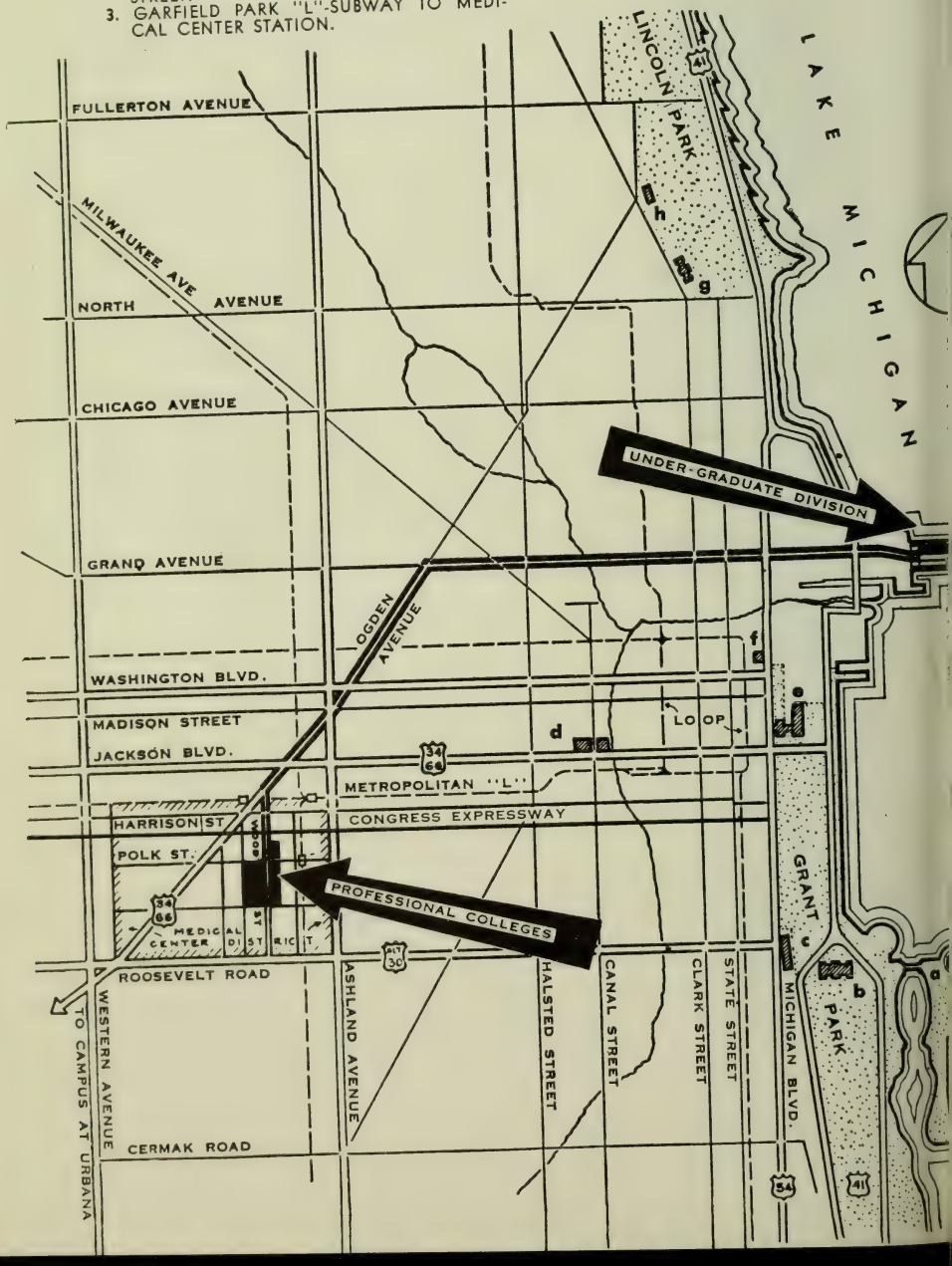
1. NORTH-SOUTH SUBWAY, TRANSFER AT GRAND AVENUE.
2. ANY NORTH-SOUTH BUS LINE, TRANSFER AT GRAND AVENUE.
3. GRAND AVENUE BUS.
4. CANAL-WACKER BUS (FROM LOOP).

TO PROFESSIONAL COLLEGES

1. N. OGDEN AVENUE BUS TO POLK-WOOD STREETS.
2. DOUGLAS PARK "L"-SUBWAY TO POLK STREET.
3. GARFIELD PARK "L"-SUBWAY TO MEDICAL CENTER STATION.

LEGEND

- a ADLER PLANETARIUM
- b CHICAGO NATURAL HISTORY MUSEUM
- c ILLINOIS CENTRAL R.R. STATION
- d UNION R.R. STATION
- e ART INSTITUTE
- f CRERAR LIBRARY
- g CHICAGO HISTORICAL SOCIETY
- h CHICAGO ACADEMY OF SCIENCES



University of Illinois

Chicago Undergraduate Division

Navy Pier

Chicago

C
IZu3Ic
1958/59
cop 2

Contents

	Page
Your University	4
Some Questions and Answers	5
Board of Trustees	10
Administrative Officers	11
Faculty	12
Calendar	21
Admission	23
Tuition and Fees	34
Veterans' Information	37
Selective Service Deferment	39
Scholarships, Loans and Employment	39
Student Welfare Services	40
Extra-Curricular Activities	45
University Services	50
Courses Required of All Students	53
College of Commerce and Business Administration	55
College of Engineering	60
Architecture and Art	66
College of Liberal Arts and Sciences	70
College of Physical Education	83
Army Reserve Officers' Training Corps	86
Courses of Instruction	90
Index	109

Your University

The Chicago Undergraduate Division of the University of Illinois is entering its thirteenth school year. Since 1946 this campus of the University has offered a well-rounded educational program to thousands of students who have found it to their advantage to live in the Chicago metropolitan area while attending college. The campus is conveniently located on Chicago's Navy Pier, at the foot of Grand Avenue at Lake Michigan. This Division offers work in four colleges—Commerce and Business Administration, Engineering (including Architecture, Architectural Engineering, and Art), Liberal Arts and Sciences, and Physical Education for Men and Women.

In addition, pre-professional courses of study necessary for admission to the professional colleges of medicine, dentistry, veterinary medicine, education, journalism, law, nursing and occupational therapy are available.

The courses, held during the daytime hours only, are exactly like those offered in the same fields of study on the University of Illinois campus at Urbana-Champaign. The schedule of fees and admission requirements are the same on both campuses.

Excellent instructional facilities are provided in the school's sixty-eight classrooms and thirty-three modern, fully-equipped laboratories. An 85,000-volume library, recreational facilities, well-furnished lounges, and food service supplement the academic program. A large gymnasium adjacent to the main building houses the athletic program. The basic courses and the first year of the advanced course in Army R.O.T.C. are available on a voluntary basis for men students.

The academic life of the student is supervised by the dean and the staff of the college in which the student enrolls. For most matters of student welfare and activities, and for the interpretation of University regulations, the student is advised by the Dean of Students and his staff. Professional counseling and scientific testing services are available to students and prospective students through the Student Counseling Service.

The Chicago Undergraduate Division, through its educational, social, and cultural program, provides its student body with the same high degree of service which has been so long a part of the University of Illinois tradition.

SOME QUESTIONS AND ANSWERS:

The University of Illinois welcomes the interest you show by reading this catalogue. The offerings of the Chicago Undergraduate Division are presented in considerable detail in this publication. However, our experience has taught us that there are some questions that are asked more frequently than others.

You will find outlined below some of the items of information most often sought.

- **CAN I EARN A DEGREE AT THE CHICAGO UNDERGRADUATE DIVISION?**

  No, not yet. At the present time this division offers generally the first two years work in

  Commerce and Business Administration; Engineering (Including two and one-half years of Architecture and one year of Art); Liberal Arts and Sciences; Physical Education (Professional courses for both men and women).

- **EXCEPTION:**

  The complete three year *premedical* program is offered at this division. Students apply directly to the College of Medicine after completing this program.

  Look on page 9 for a complete listing of the curricula offered.

- **NIGHT CLASSES?**

  Only day classes are offered as part of the program of this division; however,

- **EXTRAMURAL COURSES:**

  The facilities of this division are used at night for extramural courses offered under the auspices of the Division of Extension. Call the Illini Center, RAndolph 6-7750, for further information.

- **SCHOOL OF SOCIAL WORK:**

  Complete graduate degree program is offered in Chicago. Call MOnroe 6-3900, Extension 8351, or write to Room 176, 833 S. Wood Street, Chicago 12, Illinois.

- **OTHER UNIVERSITY OF ILLINOIS FACILITIES IN CHICAGO, on the Professional Campus are**

  Medicine
  Dentistry
  Pharmacy
  Nursing
  Occupational Therapy

School of Social Work, Chicago Branch
Graduate School (Health Sciences only)

For information call
MOnroe 6-3900 or write
to
University of Illinois
1853 W. Polk Street
Chicago 12, Illinois

- **WHERE IS THE CHICAGO UNDERGRADUATE DIVISION?**

  At the foot of Grand Avenue at Lake Michigan on the Chicago Municipal Pier, now called *Navy Pier.*

- **WHERE IS THE MAIN CAMPUS OF THE UNIVERSITY OF ILLINOIS?**

  In Urbana, about 130 miles south of Chicago.

- **ARE THE COURSES TAUGHT AT THE CHICAGO UNDERGRADUATE DIVISION THE SAME AS THOSE IN URBANA?**

  Yes. One can think of this division as a section of the Urbana campus transplanted to Chicago.

- **TUITION AND FEES:**

  For Illinois Residents, $101 per semester.
  For Non-Residents of Illinois, $276 per semester.

- **HOUSING:**

  Since almost all our students live at home, no housing is provided. However, students in need of housing may obtain information from the office of the Dean of Students, Room 313.

- **STUDENT ACTIVITIES:**

  Over forty different student organizations are active on this campus. See pages 45-49.

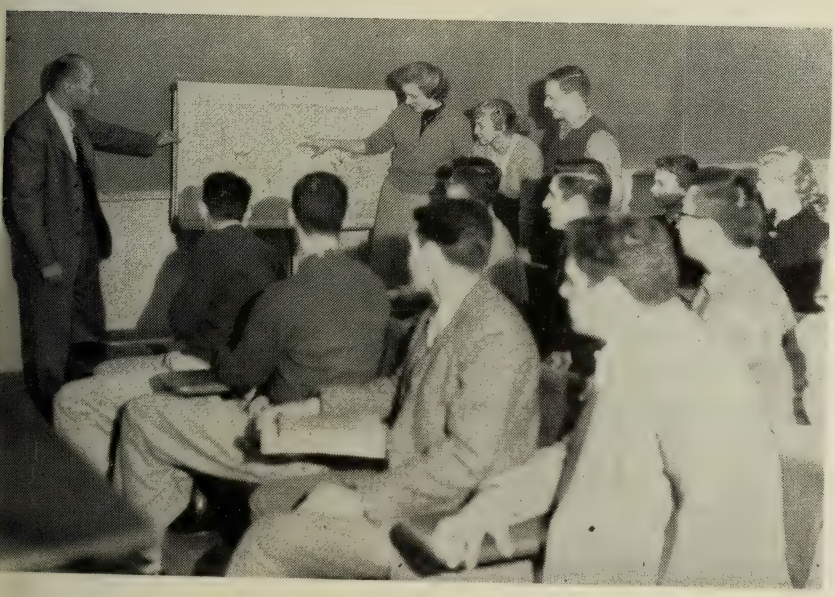
- **CORRESPONDENCE COURSES:**

  For information write to
  Division of Extension
  University of Illinois
  Urbana, Illinois
  Correspondence courses are not offered through the facilities of this campus.

• FOREIGN STUDENTS:

Foreign students from twenty-five different countries throughout the world are now attending this campus.

Special courses in rhetoric and speech are offered for those who do not have proficiency in the English language because of their foreign background. These classes are designed to take care of the individual needs of the student. Special advisers assist foreign-born students evaluate their abilities and plan their programs.



• A FEW STATISTICS:

98% of our students are Illinois residents.
The Illinois residents come from the following counties:

Cook	96%
Du Page	2%
Lake	0.8%
15 other counties	1.2%

2% of our students are non-residents of Illinois and they come from:

15 different states
1 territory
25 different countries

- **FACILITIES:**

  68 classrooms
  33 modern, fully equipped laboratories
  85,000 volume library
  Recreational facilities and lounges
  Food Service
  Gymnasium facilities for men and women
  Auditorium facilities for educational, social and special events

- **ATHLETICS:**

  1. Varsity competition in
     Basketball
     Baseball
     Cross country
     Football
     Golf
     Gymnastics
     Soccer
     Swimming
     Tennis
     Track and Field
     Wrestling
  2. Intra-mural sports program serves over 1200 students each semester.
  3. Women's Athletic Association
     Orchesis
     Sports activities

- **STUDENT COUNSELING SERVICES:**

  Educational and Vocational guidance counseling. See pages 42-43.

- **CURRICULA IN MUSIC ARE NOT OFFERED ON THIS CAMPUS.**

- **IS ROTC REQUIRED?**

  Participation is urged, but not required. See pages 86-89.

- **PHYSICAL EDUCATION:**

  Generally, all students must earn credit in four semesters of physical education for the baccalaureate. See page 53.

  Registration in ROTC does not exempt students from the degree requirements in physical education.

• COLLEGES AND CURRICULA OFFERED

LIBERAL ARTS AND SCIENCES

Chemical Engineering
Chemistry
Combined Engineering-Liberal Arts
General
Occupational Therapy
Physics
Speech Correction

Pre-professional curricula:
- Pre-Dentistry
- Pre-Journalism
- Pre-Law
- Pre-Medicine
- Pre-Nursing
- Pre-Veterinary Medicine

Teacher Education Curricula:
- Biology
- Chemistry
- Deaf and Hard of Hearing
- Elementary Education
- English
- French
- Geography
- German
- Home Economics
- Industrial Education
- Mathematics
- Mathematics and Physical Sciences
- Mentally Handicapped
- Music Education
- Physics
- Social Studies
- Spanish
- Speech

COMMERCE

Common program for all Commerce Students
Commercial Teaching
Pre-Journalism
Pre-Law

ENGINEERING

Aeronautical
Agricultural
Ceramic
Civil
Electrical
Engineering Physics
General
Industrial
Mechanical
Metallurgical
Mining
Sanitary
Theoretical and Applied Mechanics
Combined Liberal Arts-Engineering

Architecture Design
Architectural Construction

Art Education
Industrial Design
History of Art
Advertising Design
Painting

PHYSICAL EDUCATION

Physical Education for Men
Physical Education for Women
Dance
Health Education
Recreation

Board of Trustees

UNIVERSITY OF ILLINOIS

Members Ex-Officio

WILLIAM G. STRATTON, Governor of Illinois ..... Springfield
VERNON L. NICKELL, Superintendent of Public Instruction ..... Springfield

Elected Members

Term 1953-1959

CUSHMAN B. BISSELL ..... 135 S. LaSalle St., Chicago 3
MRS. DORIS S. HOLT ..... 330 E. Sixth St., Flora
PARK LIVINGSTON ..... 3600 N. River Rd., Franklin Park

Term 1955-1961

WIRT HERRICK ..... 120½ E. Main St., Clinton
MRS. FRANCES B. WATKINS ..... 5831 S. Blackstone Ave., Chicago 37
KENNEY W. WILLIAMSON ..... Sixth Floor, Lehmann Building, Peoria 2

Term 1957-1963

WAYNE A. JOHNSTON ..... 135 E. Eleventh Place, Chicago 5
EARL M. HUGHES ..... Hughes Farms, Route 1, Woodstock
TIMOTHY W. SWAIN ..... 912 Central National Bank Building, Peoria 2

Officers of the Board

PARK LIVINGSTON, President ..... Franklin Park
ANTHONY J. JANATA, Secretary ..... Urbana
CLARENCE W. WELDON ..... Chicago 90
HERBERT O. FARBER, Comptroller ..... Urbana

Committee on the Chicago Departments

MRS. FRANCES B. WATKINS, Chairman, CUSHMAN B. BISSELL, TIMOTHY W. SWAIN.

Administrative Officers

Urbana

David Dodds Henry	President
Gordon N. Ray	Provost and Vice President
Charles Wilson Sanford	Dean of Admissions

Chicago Undergraduate Division

Charles C. Caveny	Executive Dean
Harold N. Cooley	Assistant Dean
Robert P. Hackett	Associate Dean Commerce and Business Administration
William J. Dunne	Assistant Dean Commerce and Business Administration
Frederick W. Trezise	Associate Dean Engineering Sciences
Rupert M. Price	Assistant Dean Engineering Sciences
Harold W. Bailey	Associate Dean Liberal Arts and Sciences
Willis C. Jackman	Assistant Dean Liberal Arts and Sciences
Ellis B. Little	Assistant to the Dean Liberal Arts and Sciences
John O. Jones	Associate Dean Physical Education and Director of Athletics
Warren O. Brown	Associate Dean of Students Veterans Counselor
Agnes G. Tandberg	Dean of Women
Merton S. Zahrt	Assistant to the Dean of Students
Harold E. Temmer	Associate Dean of Admissions and Records
Paul C. Greene	Director, Student Counseling Service
H. Gordon Reid, M.D.	Director, Health Service
Edward M. Heiliger	Librarian
Robert L. Zander	Assistant Superintendent of Buildings and Grounds
Robert E. Porter	Assistant to the Business Manager
John H. Worthington	Manager, Public Information
Zan Skolnick	Assistant Manager, Public Information
Leonard D. Harper	Personnel Officer
Frank C. McClenahan, Major, USA	Commandant, Army ROTC Unit

Faculty

CHICAGO UNDERGRADUATE DIVISION
1957-1958

PROFESSORS

Babler, Bernard J., Ph.D., Physical Sciences.

Bailey, Harold W., Ph.D., LL.D., Mathematics; Associate Dean of Liberal Arts and Sciences.

Barber, Hollis W., Ph.D., Political Science.

Carlson, Clarence I., B.S., General Engineering; Head of the Department of General Engineering.

Caveny, Charles C., Executive Dean, Chicago Undergraduate Division.

Cobb, Arnold C., M.S., Theoretical and Applied Mechanics.

Crum, Ferris B., Ph.D., Physical Sciences.

Cutshall, Alden D., Ph.D., Geography. (On leave 1957-58)

Derrick, Lucile, Ph.D., Economics. (On leave 1957-58)

Fox, Samuel, J.D., Ph.D., Accountancy.

Frank, Evelyn, Ph.D., Mathematics.

Goppert, Harold R., M.S., General Engineering.

Grampp, William D., Ph.D., Economics. (On leave 1957-58)

Greene, Paul C., Ph.D., Psychology; Director, Student Counseling Service.

Hackett, Robert P., Ph.D., Accountancy; Associate Dean of Commerce and Business Administration.

Huitema, Roy, Ph.D., Physical Sciences.

Jones, John O., M.S., Physical Education for Men; Associate Dean of Physical Education.

Klassen, Peter P., Ph.D., Sociology.

Lipman, Eli A., Ph.D., Psychology.

McEldowney, Harold B., B.S., Architecture; Head of the Department of Architecture and Art.

Meloy, Carl R., Ph.D. Physical Sciences; Head of the Division of Physical Sciences.

Nowlan, Frederic S., Ph.D., Mathematics *emeritus*.

Railsback, Ora L., Ph.D., Physics; Head of the Physics Department.

Riddle, Donald W., Ph.D., History; Head of the Division of Social Sciences.

Thompson, Wayne N., Ph.D., Speech.

Trezise, Frederick W., C.E., M.S., Engineering; Associate Dean of Engineering.

Vest, Eugene B., Ph.D., English; Head of the Division of Humanities.

ASSOCIATE PROFESSORS

Bachrach, Joseph, Ph.D., Physical Sciences.
Barton, Helen M., Ed.D., Physical Education for Women; Head of the Department of Physical Education for Women.
Coe, Edward H., C.E., Civil Engineering.
DeFilipps, Anthony J., B.S., Architecture.
Eells, Kenneth W., Ph.D., Psychology; Assistant Director Test Services; Counselor, Student Counseling Service.
Gillett, Clarence H., Ph.D., Economics.
Hartley, Miles C., Ph.D., Mathematics.
Heiliger, Edward M., B.S. in L.S., M.A., Library Science; Librarian.
Hunt, Charles K., Ph.D., Physical Sciences.
Jones, Stanley L., Ph.D., History.
Kabbes, S. Madonna, M.B.A., C.P.A., Accountancy.
Karpinski, Robert W., D.ès S., Physical Sciences.
Klehr, Harold, Ph.D., Psychology; Assistant Director, Counseling Services; Counselor, Student Counseling Service.
Kostka, Helen M., M.D., Hygiene.
Kozacka, Joseph S., M.S., Mechanical Engineering *emeritus.*
Madison, Kenneth M., Ph.D., Biological Sciences.
McClenahan, Major Frank C., B.S., Military Science and Tactics.
McNeil, Edward B., Ph.D., Physics.
McNee, John D., Jr., A.M., Art.
Mikolajczyk, Henry L., A.M., Architecture; Associate Architect.
Morris, Daniel J., Ph.D., Philosophy.
Nicholson, Robert L., Ph.D., History.
Perkins, Roy B., M.S., Mechanical Engineering; Head of the Department of Engineering Shop Laboratories.
Pickett, Arthur D., Ph.D., Biological Sciences.
Price, Rupert M., M.S., Physics; Assistant Dean of Engineering.
Radice, Canio, M.A., Art.
Reid, H. Gordon, M.D. Hygiene.
Richardson, John F., M.A., Art.
Ricks, Victor E., Ph.D., Education; Teacher Education Advisor.
Rouffa, Albert S., Ph.D., Biological Sciences.
Sanchez, Jose, Ph.D., Foreign Languages.
Sangster, William, Ph.D., Biological Sciences.
Schneider, Albert J., M.B.A., C.P.A., Accountancy.
Schroeder, Roy W., Foundry and Pattern Design.
Schuyler, William M., Ph.D., Foreign Languages.

Shank, Max C., Ph.D., Biological Sciences; Chairman of the Division of Biological Sciences.
Shapiro, Samuel E., B.S., General Engineering.
Shopen, Kenneth, A.B., Art.
Skadeland, Harold M., M.A., Physics.
Vardaman, Hazel C., Ph.D., Foreign Languages.
Walley, John E., Architecture.
Walraven, H. Dale, M.A., General Engineering.
Willner, Ernest S., Ph.D., Foreign Languages.

ASSISTANT PROFESSORS

Anderson, William R., M.C., Physics.
Andrews, Daniel K., Ph.D., Accountancy.
Ballard, Ruth M., Ph.D., Mathematics.
Berrafato, Peter R., M.S., Physical Education for Men; Director of Intramural Sports.
Bill, Shirley A., Ph.D., History.
Blair, Leon N., B.S., General Engineering.
Blum, Irving D., Ph.D., English.
Burr, Edward E., B.F.A., Art.
Chambers, Capt. Robert M., B.S., Military Science and Tactics.
Chandler, Louis, Ph.D., Physics.
Corley, Robert E., Ph.D., Sociology.
Cramer, Glenn E., B.S., General Engineering.
Curtis, Herbert J., Ph.D., Mathematics.
Dembski, Marion V., M.A., General Engineering.
DeYoung, Charles D., M.A. in L.S., M.S., Library Science; Circulation Librarian.
Dinkines, Flora, Ph.D., Mathematics.
Feinstein, Irwin K., Ph.D., Mathematics.
Fissinger, Edwin R., M. Mus., Music.
Fordham, Sheldon L., M.S., Physical Education for Men; Track & Cross Country Coach.
Frommherz, Carl J., A.B., B.S. in L.S., Library Science; Catalog Librarian.
Fuller, John B., Ph.D., Foreign Languages *emeritus*
Gabis, Stanley T., Ph.D., Political Science.
Gedvilas, Leo L., M.S., Physical Education for Men; Assistant Basketball Coach.
Glassman, Sidney F., Ph.D., Biological Sciences.
Gum, Wanda N., Ed.D., Social Sciences. (On leave 1957-58)
Hartoch, Arnold J., Ph.D., Foreign Languages.
Hilker, Gloria, M.D., Hygiene.

Holladay, Dee Mette, A.B., General Engineering.
Howard, Allen H., Ph.D., Psychology.
Jackman, Willis C., M.A., English; Assistant Dean of Liberal Arts and Sciences.
Johnson, Falk S., Ph.D., English.
Johnson, Herman, J., M.S., Physics.
Jordan, Moreen C., Ph.D., English.
Jung, Allen F., Ph.D., Economics.
Karanikas, Alexander, Ph.D., English.
Kauf, Robert, Ph.D., Foreign Languages.
Kenny, Anna W., Ph.D., English.
Klapperich, Alfred J., B.S., Electrical Engineering.
Klaas, Rosalind A., Ph.D., Physical Sciences.
Knudson, Edward C., M.B.A., Economics.
Kogan, Bernard R., Ph.D., English.
Kohler, Richard C., Ed. D., General Engineering.
Kristufek, Charles J., M.S., Physical Education for Men; Assistant to the Director of Athletics; Swimming & Tennis Coach.
Lein, Marie E., Ph.D., Foreign Languages.
Leonhard, Zelma B., Ph.D., English.
Lipkin, Lawrence, M.B.A., C.P.A., Accountancy.
Little, Ellis B., Ed.D., Biological Sciences; Assistant to the Dean of Liberal Arts and Sciences.
Livermore, Ogden, M.A., Physics.
Mansfield, J. Victor, Ph.D., Physical Sciences.
Marsh, John O., Jr., Ph.D., Foreign Languages.
Masterton, Don A., M.S., Architecture.
Miller, Lester H., Jr., Physical Education for Men; Baseball Coach.
Mueller, Hans J., Ph.D., Physical Sciences.
Nicholas, Constance, Ph.D., English.
Pappademos, John N., M.A., Physics.
Paull, Donald, Ph.D., Psychology; Counselor, Student Counseling Service.
Pennisi, Louis L., Ph.D., Mathematics.
Perry, J. Warren, Ph.D., Psychology; Counselor, Student Counseling Service.
Pitt, Carl A., Ph.D., Speech.
Rapp, Marie A., A.B., A.B. in L.S., Library Science; Reference Librarian.
Rathbun, Rowland, M.S., Architecture.
Rheumer, George A., Ph.D., Geography.
Rietz, Edward G., Ph.D., Physical Sciences.
Ritter, Frederick, Ph.D., Foreign Languages.
Royster, Richard S., M.A., General Engineering.

Runyan, Harry J., Ph.D., English.
Schiller, Andrew, Ph.D., English.
Schrage, Samuel, Ph.D., Physical Sciences.
Schroeder, Fred W., M.S., General Engineering.
Setton, Henry A., B.S., General Engineering
Shaw, Fayette B., Ph.D., Economics.
Shomay, David, Ph.D., Biological Sciences.
Silkett, Albert F., A.B., Physics.
Stronks, James B., Ph.D., English.
Unfer, Louis, Ph.D., History.
Weiss, Samuel A., Ph.D., English.
Weissman, Herman B., M.S., Physics.
Weldon, John W., Ph.D., Physical Sciences.
White, Lester D., Architecture.
Wiesinger, Frederick P., A.E., Mechanical Engineering.
Wright, Elizabeth V., Ph.D., English.
Yokoyama, Katsuyuki, Ph.D., Biological Sciences. (On leave 1957-58)

INSTRUCTORS

Alberti, Furio, M.S., Mathematics.
Armold, Jack D., M.A., Speech.
Atwood, Norman R., M.A., English.
Berglund, Winifred V., M.A., Mathematics.
Berman, Louis A., M.A., Psychology, Associate Counselor, Student Counseling Service.
Bolton, Charles D., M.A., Sociology.
Bond, James A., M.A., Biological Sciences.
Braunfeld, Johanna, M.A., Foreign Languages.
Caldario, Edward J., B.S., General Engineering.
Carbonaro, Lynn M., M.S., Physical Sciences.
Carlson, Kathryn Q., M.A., English
Cassell, Robert L., M.A., English.
Casten, Sabine H., M.S., Physical Sciences.
Chapp, Donald F., M.S., Biological Sciences.
Charkovsky, Willis, M. Mus., Music.
Clampitt, Robert E., Sgt. First Class; Military Science and Tactics.
Colby, Mary M., M.S., Geography.
Cowin, John W., M.A., Physical Sciences.
Cox, F. Gaylord, M.A., English.
Cowles, Harriet E., A.M., Foreign Languages.
Crawley, Derek F., M.A., English.
Creaser, James W., M.A., Psychology; Counselor, Student Counseling Service.

Crews, Janice M., A.M., Speech.
DeFotis, William, B.S., General Engineering.
Dembski, William J., M.S., Biological Sciences. (On leave 1957-58)
Dollahan, June M., M.A., English.
Dunne, William J., M.B.A., Economics; Assistant Dean of Commerce and Business Administration.
Farag, Shafeek, M.A., Physical Sciences.
Finney, Mildred I., A.M., Geography.
Freyer, Warren R., A.M., English.
Geldard, Winifred B., M.A., Economics.
Ginzel, Roland F., M.F.A., Art.
Goodman, Gordon L., Ph.D., History.
Gordon, Louis I., M.S., Mathematics.
Gottlieb, Anatol, T.Sc.D., Physical Sciences.
Goulson, Frances M., M.T.A., Speech.
Greenwald, Arthur L., M.A., English.
Griest, Guinevere L., A.M., English.
Hart, Jeannette Z., M.S., Physical Sciences.
Hasan, Mazhar, M.S., Physics.
Hedish, Norman D., M.A., Accountancy.
Heftel, Daniel L., M.A., Psychology, Counselor, Student Counseling Service.
Hegie, Lucy S., M.A., English.
Herzog, Elaine P., M.A., Physical Sciences.
Hill, Roger G., B.A., Mathematics.
Hipple, Eleanor K., A.M., English.
Hoskins, Conde R., M.A., Speech.
Hovde, Helen J., M.A., Speech.
Johnson, John C., M.A., English.
Kaucki, Eugene F., M.A., Economics.
Kerwick, Marion S., M.A., English.
Kester, Martha, A.B., M.S. in L.S., Library Science; Assistant Catalog Librarian.
Kirstein, Laurette A., M.A., English; Counselor, Student Counseling Service.
Kurs, Louis N., M.S., Physical Sciences.
Lariviere, Rose, M.A., Mathematics.
Larson, Carl M., M.B.A., Economics.
Lasher, Rose, B.A., Foreign Languages.
Lindberg, Richard C., B.S. in C.E., LL.B., Theoretical and Applied Mechanics.
Linn, Julia B., M.S., Mathematics.

Lipman, Vivian C., M.A., Psychology.
Love, W. Nell, A.M., English.
Mackin, John H., A.M., English.
Malinosky, Alfonse T., B.S., Accountancy.
Mann, William C., M.S., Physical Education for Men; Wrestling Coach.
McNamara, Eugene J., M.A., English.
Merten, Horace G., M.A., English *emeritus*.
Meyer, John H., A.M., Foreign Languages.
Miller, Irving M., M.A., English.
Miller, Oscar, M.A., Economics.
Miller, Robert L., M.S., Physical Sciences; Counselor, Student Counseling Service.
Miller, Sonia, A.M., Instructor in English.
Montcalm, Benedict W., M.A., Physical Education for Men; Gymnastics Coach.
Moraine, Fishel E., Dipl. Ing., Electrical Engineering.
Morici, Anthony R., M.A., Accountancy.
Mosillo, Francis A., B.S., General Engineering.
Munro, David A., M.A., English.
Murphy, Charles E., M.A., Economics.
Murphy, Kenneth H., M.S., Mathematics.
Nolan, Grace M., M.A., Mathematics.
Oleksy, Margaret H., M.A., English.
Olsen, Charles E., B.S., Mathematics.
Ondrak, Thomas B., M.S., Mathematics.
O'Neill, Thomas M., M/Sgt., Military Science and Tactics.
Pabarcius, Algis, B.S., Civil Engineering.
Page, Robert R., A.M., Philosophy.
Patlogan, Sylvia, M.A., Foreign Languages.
Perez, Isidro L., M.D., Hygiene.
Perry, Clarence J., M.Ed., Physical Sciences.
Pesavento, Wilma, B.S., Physical Education for Women.
Polli, John F., Ph.D., Physical Sciences.
Potempa, Sylvester J., M.S., Physical Sciences.
Presley, Halina J., M.S., Biological Sciences.
Prouty, Joan C., M.A., English.
Prun, Al A., M/Sgt., Military Science and Tactics.
Rader, Richard R., M.A., Physical Education for Men; Golf Coach; Basketball Coach.
Rees, Candida K., M.S., Mathematics.
Rigler, Matthew L., M.S., Speech; Head of the Speech Improvement Laboratory.

Rosman, Livia R., M.A., Foreign Languages.
Rudin, Cecilia M., M.A., English.
Sackheim, George I., M.A., Physical Sciences.
Sachs, Lester M., M.S., Physics.
Savoy, Michael G., M.S., Physical Sciences.
Scholomiti, Nicholas C., A.M., Mathematics.
Seabright, Frances K., M.S., Physical Sciences.
Sears, Helen W., M.A., Mathematics.
Seltzer, Arthur O., A.M., Economics.
Sidney, Mary C., A.M., English.
Skogen, Clara S., M.A., Foreign Languages.
Spies, Harold W., M.D., Hygiene.
Spirakis, Charles N., A.M., Biological Sciences.
Stableford, Nancy, MFA, Art.
Stanley, William J., B.S., Mechanical Engineering.
Strnad, George J., B.S., Physical Education for Men; Assistant Football Coach.
Sullivan, Bernadette M., A.B. in L.S., Library Science; Assistant Reference Librarian.
Teichmann, Elizabeth, M.A., Foreign Languages.
Timmis, Beatrice S., M.A. English.
Tort, Ferdina J., M.A., Foreign Languages.
Tsao, Peter, M.S., Physics.
Tyroler, Robert L., S.M., Psychology.
Vedral, Rose L., M.A., Mathematics.
Versen, Walter G., Ed.M., Physical Education for Men; Football Coach.
Viviano, Joseph W., M.S. in L.S., Library Science; Fine Arts Librarian.
Wilbur, James W., M.A., Physics.
Wiley, Rosemary F., A.M., Mathematics.
Willett, Maurita F., M.A., English.
Williams, Henry F., M.A., Economics.
Ziomek, Leo F., M.S., Mathematics.
Zygmund, Irena, M.A., Mathematics.

ASSISTANTS

Anderson, Donald R., B.S., Physical Education for Men; Assistant Wrestling Coach.
Anzalone, Charlene B., B.S., Physical Education for Women.
Bosnak, William A., B.S., Physical Education for Men; Assistant Football Coach.
Bouc, Charles A., B.A., General Engineering.
Claypoole, Donna Jean, B.A., Physical Education for Women.
Crabb, Robert L., B.A., Economics.

Dafler, James R., B.A., Physical Sciences.
Davis, Russell E., M.A., English.
DeMar, Robert E., A.B., Physical Sciences.
Duff, Donna J., M.S. in L.S., Library Science; Assistant Reference Librarian.
Friend, James, M.A., English.
Glasel, Jay A., B.S., Physical Sciences.
Helmer, Lorraine R., M.A., English.
Henderleiter, William M., A.M., Mathematics.
Hunter, Gilbert J., B.A., Geography.
Johnson, Robert E., B.A., Physical Sciences.
Krishna, Kumar, M.S., Biological Sciences.
Kuzmanic, Betty W., M.Ed., Mathematics.
Lane, Charles E., A.B., Psychology; Assistant Counselor, Student Counseling Service.
Lothian, Thomas A., B.S., Physical Sciences.
Lumley, Jeannette S., M.A., Mathematics.
Nemoto, Harold H., B.S., Physical Education for Men; Assistant Football Coach; Assistant Baseball Coach.
Patricelli, Alfonzo A., B.S., Mathematics.
Rawson, Robert O., M.S., Biological Sciences.
Scudder, Charles L., M.S., Biological Sciences.
Sjoblom, Laurence R., B.S., Mathematics.
Springer, Melvin J., Physical Education for Men; Soccer Coach; Assist- and Track Coach.
Star, Morris, M.A., English.
Thomas, Ruth G., B.S., Physical Education for Women.
Warren Charles P., M.A., Sociology.
Wenzel, Joseph W., B.S., Speech.

Calendar

Chicago Undergraduate Division

First Semester (Fall 1958)

Wed., Sept. 3—Wed., Sept. 10	Orientation Period
Thurs., Sept. 11—Fri., Sept. 12	Registration
Mon., Sept. 15	Instruction Begins
Wed., Nov. 26, 6 p.m.	Thanksgiving Vacation Begins
Mon., Dec. 1, 8 a.m.	Thanksgiving Vacation Ends
Wed., Dec. 3	Illinois Day (State admitted to Union, 1818—Not a Holiday)
Wed., Dec. 17, 6 p.m.	Christmas Vacation Begins
Mon., Jan. 5, 8 a.m.	Christmas Vacation Ends
Fri., Jan. 16—Sat., Jan. 24	Semester Examinations

Second Semester (Spring 1959)

Fri., Jan. 30—Wed., Feb. 4	Orientation Period
Thurs., Feb. 5—Fri., Feb. 6	Registration
Mon., Feb. 9	Instruction Begins
Mon., Mar. 2	University Day (University opened, 1868—Not a Holiday)
Thurs., Mar. 26, 6 p.m.	Easter Vacation Begins
Wed., Apr. 1, 8 a.m.	Easter Vacation Ends
Fri., May 8	Honors Day
Sat., May 30	Memorial Day (Holiday)
Thurs., May 28—Sat., June 6	Semester Examinations

Summer Session 1959

Fri., June 19	Registration
Mon., June 22	Instruction Begins
Sat., July 4	Independence Day (Holiday)
Fri., Aug. 14	Summer Session Examinations

Calendar

Urbana

First Semester (Fall 1958)

Tues., Sept. 2—Fri., Sept. 5	Entrance Examinations
Mon., Sept. 8—Sat., Sept. 13	Freshman Week and Registration
Mon., Sept. 15	Instruction Begins
Wed., Nov. 26, 1 p.m.	Thanksgiving Vacation Begins
Mon., Dec. 1, 1 p.m.	Thanksgiving Vacation Ends
Wed., Dec. 3	Illinois Day (State admitted to Union 1818)
Sat., Dec. 20, 1 p.m.	Christmas Vacation Begins
Mon., Jan. 5, 8 a.m.	Christmas Vacation Ends
Thurs., Jan. 15	Study Day, Classes Dismissed
Fri., Jan. 16—Sat., Jan. 24	Semester Examinations

Second Semester (Spring 1959)

Tues., Jan. 27—Fri., Jan. 30	Entrance Examinations
Mon., Feb. 2—Wed., Feb. 4	Registration
Thurs., Feb. 5	Instruction Begins
Mon., Mar. 2	University Day (University Opened 1868)
Wed., Mar. 25, 1 p.m.	Spring Vacation Begins
Mon., Mar. 30, 1 p.m.	Spring Vacation Ends
Fri., May 1	Honors Day (Classes Dismissed at Noon)
Sat., May 30	Memorial Day (Holiday)
Tues., May 26	Study Day, Classes Dismissed
Wed., May 27—Fri., June 5	Semester Examinations
Sat., June 13	Commencement exercises

Summer Session 1959

Tues., June 2—Fri., June 5	Entrance Examinations
Mon., June 15	Registration
Tues., June 16	Instruction Begins
Sat., July 4	Independence Day (Holiday)
Fri., Aug. 7—Sat., Aug. 8	Summer Session Examinations

Admission

THERE ARE SEVEN STEPS

In order to become a student at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

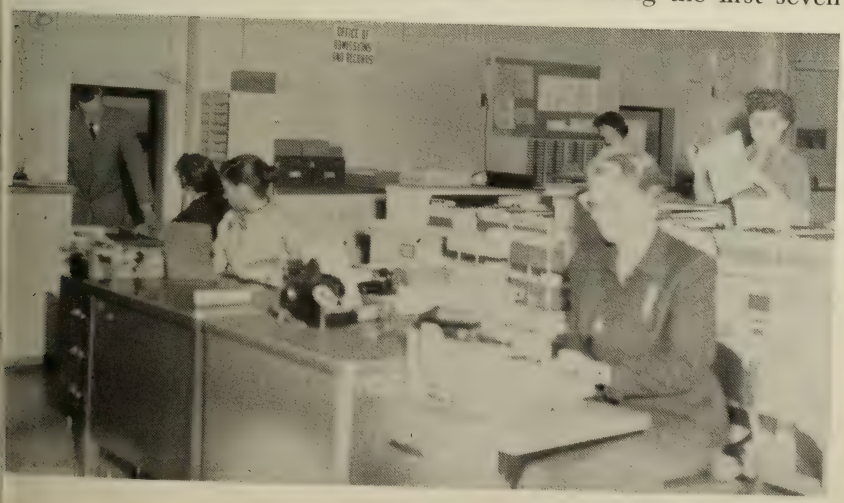
1. Obtain an application for admission. The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.

2. Provide the Office of Admissions and Records with an official transcript of his record in high school and his record at each college or institution of higher education which he has attended since leaving high school. The applicant must assume responsibility for having these records forwarded directly to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois, by an official of the school concerned.

The applicant should arrange with the registrar of his high school and of each college or university he has attended to have his transcripts forwarded to this office as soon as possible, to permit an early evaluation of his credentials.

In addition, applicants who have been on active duty in the Armed Forces must also submit photo copies of their service separation papers.

High school seniors may apply during their eighth semester. They may be issued a permit to enter, subject to their successful completion of their eighth semester, based on their work during the first seven



semesters, their rank in class after seven semesters, the courses in progress their eighth semester, and the probable date of their graduation.

3. **Decide which college and curriculum** in the University he desires to enter. To assist applicants in making this decision, the Chicago Undergraduate Division of the University offers Vocational and Educational Aptitude Examinations which are followed by professional counseling.

For new freshmen, these guidance examinations are a required activity of the orientation period. Exception: Students ranking in the lowest quarter of their class do not take these examinations, but follow the procedure listed in Paragraph V, C, page 31.

However, since the *time* available for counseling during the orientation period is extremely limited, these examinations and counseling interviews are now being offered several months in advance. Appointment requests for these examinations may be made through the Office of Admissions and Records. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

4. **Complete and return** the application blank.

5. **Wait for action to be taken** on your application. When an applicant's case is complete, that is, after his completed application blank and all necessary supporting records and transcripts have been received, the case will be evaluated. If the application is approved, the applicant will be sent a permit to enter, an appointment for such placement and guidance tests as may be necessary, an appointment for a physical examination, and information as to the date and place of his college meeting and of registration. If the application is not approved, the Office of Admissions and Records will send the applicant written notice of this action, explain his deficiences, and make suggestions as to the manner in which he may remove them and qualify for admission.

6. **Report to Navy Pier** for physical examination, college meeting, and tests listed in paragraph 5, above, on the dates specified in the notice which the applicant will receive if admitted.

7. **Register,** pay tuition and fees, and start classes.

ADMISSION REQUIREMENTS

The admission requirements to the University of Illinois are divided into two groups:

I General University Admission Requirements, which apply to every student entering the University of Illinois; and

II Specific Subject Requirements for admission to a particu-

lar college and curriculum within the University, which apply to every student entering that college and curriculum.

Since each student entering the University of Illinois must enroll in a particular college and curriculum within the University, EACH STUDENT MUST MEET BOTH SETS OF ADMISSION REQUIREMENTS, i.e., the General University Admission Requirements and the Specific Subject Requirements for the college and curriculum of his choice.

I. General University Admission Requirements

These requirements must be met by all applicants. For definition of the terms used and description of the subjects acceptable in satisfaction of the requirements, please refer to Paragraph III, pages 27-28.

A. Graduation from an accredited high school. Students ranking scholastically in the fourth quarter of their high school class, see Paragraph V, C, page 31.

B. An applicant must be at least sixteen years of age. This requirement may be waived for a student fifteen years of age on recommendation of the dean of the college concerned, provided the student resides with his parents or guardian, or someone selected by them while attending the University.

C. Fifteen units of acceptable secondary school work distributed as follows:

1. A minimum of nine units of work in the academic fields (English, mathematics, sciences, foreign languages, history, and social studies) including:

a. At least three units of English.

b. At least two majors (including English) and one minor selected from the list of acceptable majors and minors in Paragraph III, D.

Exception: The requirement of a second major is waived for applicants who rank scholastically in the upper half of their high school graduating class.

2. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet the standards for accrediting.

II. College Subject Requirements: See table on page 26.

Required Subjects for Specific Colleges and Curricula

Colleges	*Subjects Required for Admission*
	In Addition to the General University Admission Requirements, see page 25.
COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION	
All Fields (Accountancy; Commerce and Law; Commercial Teaching; Economics of Government and Business, Public Utilities, and Transportation; Economic Theory; Finance; General Economics; Industrial Administration; Insurance; Labor Economics; Management; Marketing; Personnel Management; Secretarial Training; Statistical Economics; Urban Land Economics.)	Algebra, 1 unit Geometry, 1 unit
COLLEGE OF ENGINEERING	
All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Industrial, Mechanical, Metallurgical, Mining, Engineering Physics, Sanitary, Theoretical and Applied Mechanics) For combined Engineering-Liberal Arts curriculum, see under Liberal Arts.	Algebra, 2 units Plane Geometry, 1 unit Trigonometry, ½ unit (See Paragraph III, D, 3, Page 27)
Curricula in Architecture Design Option (for B.S. degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering)	Algebra, 1½ units Geometry, 1 unit (See Paragraph III, D, 3, Page 27)
Curricula in Art (Advertising Design, Industrial Design, Painting, History of Art, Art Education)	Language, 2 units[1] (See Paragraph III, D, 2, Page 27)
COLLEGE OF LIBERAL ARTS AND SCIENCES	
General Curriculum with majors in Bacteriology, Botany, Economics, English, French, Geography, Geology, German, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology Curricula preparatory to Journalism and Law Teacher Education Curricula (not requiring Chemistry, Physics, or Mathematics) Pre-professional Curriculum in Nursing (See also Paragraph V, B, 1, c, Page 30)	Language, 2 units[1] (See Paragraph III, D, 2, Page 27)
General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology Special Curricula preparatory to Dentistry, Medicine, Veterinary Medicine (See also Paragraph V, B, 1, a, Page 30)	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Algebra, 1 unit Geometry, 1 unit
Special Curriculum in Chemistry	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Algebra, 1½ units Plane Geometry, 1 unit (See Paragraph III, D, 3, Page 27)
Special Curricula in Chemical Engineering, Combined Engineering-Liberal Arts, and in Physics (See also Paragraph V, B, 1, b, Page 30)	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Algebra, 2 units Plane Geometry, 1 unit Trigonometry, ½ unit (See Paragraph III, D, 3, Page 27)
Curriculum in Elementary Education	No specific subjects
Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children (See also Paragraph V, B, 1, d, Page 30)	Algebra, 1 unit Plane Geometry, 1 unit Written approval of the Teacher Education Advisor
COLLEGE OF PHYSICAL EDUCATION	
All curricula (Physical Education for Men, Physical Education for Women, Dance, Health Education, Recreation	No specific subjects Written approval of the Associate Dean of Physical Education

[1] Foreign language requirement is waived for students who rank in the upper half of their high school graduating class.

III. Definitions

A. *Unit.* A unit is the equivalent of two high school credits, i.e., the value given to a course of study covering two semesters and including not less than the equivalent of 120 sixty-minute periods of class-room work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

B. *Major.* A major consists of a three-year sequence in one academic field.

C. *Minor.* A minor consists of a two-year sequence in one academic field.

The University's definition of a major and a minor may not be the same as that in use in your high school.

D. *Acceptable Majors and Minors.* The required majors and minors (See par. I, C, 1. b page 25) must be selected from the following:

1. *English.* In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

2. *Foreign Language.* Three units in one language constitute a major. Two units in one language constitute a minor. The acceptable foreign languages are German, French, Spanish, Italian, Latin, and Greek. Less than one unit in a language is not acceptable for admission.

3. *Mathematics.* Only courses in algebra, plane geometry and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.)

In the College of Engineering and in the chemistry, chemical engineering, and physics curricula of the College of Liberal Arts and Sciences, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that deficiencies in ad-

vanced mathematics be removed during their first year of residence. However, this will probably extend the time required for a degree.

Students who do not present the three and one-half units in mathematics as specified may be admitted to full standing by passing a proficiency examination at the University which will indicate their preparation is adequate for entrance into analytical geometry.

4. *Science.* Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. Biology may be offered in place of botany or zoology. The two units required for a minor must include at least one unit of physics, chemistry, or biology.

5. *Social Studies.* This field is divided into two areas:

a. History, e.g., United States, modern, ancient, medieval, etc. Three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.

b. General Social Studies, e.g., civics, economics, and sociology.

IV. Transfer Student Admission Requirements

A person who has attended another college or university of recognized standing is considered for admission to the University of Illinois on presenting: (1) a transcript of his record in each such college or university attended, and (2) a transcript of his secondary school work. To be eligible for admission, the student must meet the following requirements:

A. *All requirements listed in paragraphs I and II,* pages 25 and 26 *Plus:*

B. *Scholastic Requirements:*

1. Students who have completed (with passing or failing grades) more than forty semester hours of work in a recognized college or university must have:

a. A cumulative average of at least 3.0 (C) in terms of the University of Illinois grading system on *all* college work (See "Grading System", page 53),

b. *Plus* a combined average of at least 3.0 for the last two

terms of collegiate study,

c. *Plus* an average of at least 3.0 in the last term.

2. Students who have completed (with passing or failing grades) forty or fewer semester hours of work in a recognized college or university, must have:

a. A cumulative average of at least 3.0 in terms of the University of Illinois grading system.

C. Conduct Requirements: Certification of honorable dismissal from each college or university attended.

D. Exceptions:

1. To paragraph IV, A, above:

An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the admission requirements listed in paragraph I may be admitted if he presents at least thirty semester hours of credit in transfer with a 3.0 average (C) and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.

2. To the scholastic requirements:

Students who do not meet the scholastic requirements listed in paragraph IV, B, may petition for admission on scholastic probation provided they meet the following minimum requirements:

a. Students with more than forty semester hours of college work:

(1) Cumulative scholastic average of at least 3.0,

(2) Plus a combined average of at least 3.0 for the last two terms,

(3) *But* less than a 3.0 average in the last term.

b. Students with forty or fewer hours of college work: (This exception does NOT apply to non-residents of the State of Illinois or to applicants for the College of Engineering.)

(1) Less than a 3.0 average but *more than* a 2.50 average.

(Transfer students whose scholastic record is lower than that described in paragraphs IV, D, 2a, and 2b are not eligible for admission.)

3. To the Conduct Requirement:

A student on conduct probation at another accredited college or university or one who has been dropped from such an institution for disciplinary reasons may petition for admission through the University Senate Committee on Student Discipline.

V. Special Scholastic Admission Requirements (in addition to requirements on pages 25 and 26.)

A. For Non-Resident Students:

Applicants who are not residents of the State of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in paragraphs I and II, pages 25-26, and further provided that:

1. As high school graduates they ranked scholastically in the upper half of their class on graduation.

2. As transfer students with forty or less semester hours they present a collegiate scholastic average of at least 3.0 (C) in terms of the University of Illinois grading system.

3. As transfer students with more than forty hours, see Paragraph IV, B, 1.

B. For Certain Colleges and Curricula:

1. Curriculum	*Scholastic Requirements*
a. Premedical, Predental, Preveterinary Medicine, Occupational Therapy	(See also paragraph 3 below)
(1) High school graduates	Rank in upper half of graduating class.
(2) Transfer students	3.0 collegiate average.
b. Physics Curriculum High school graduates	Rank in upper half of graduating class.
c. Preprofessional Curriculum in Nursing	
(1) High school graduates	Rank in upper half of graduating class.
(2) Transfer students	Collegiate average of 3.0.
d. Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children.	
(1) High school graduates	Rank in top quarter of graduating class.
(2) Transfer students	3.5 collegiate average.

2. *College of Engineering* (Except curricula in Architecture, Architectural Engineering, and Art). Transfer students must present at least a "C" average. Transfer students with less than a "C" average will *not* be admitted.
3. *Occupational Therapy.* Applicants for this program must:
   a. Be less than thirty years of age.
   b. Pass a special health examination given by the University Health Service.
   c. Be recommended by the Director of Occupational Therapy. (The Director is located in Room W-425, Research and Educational Hospitals, 840 S. Wood Street, Chicago 12, Illinois.)

C. *For Students Ranking in the Lowest Quarter Scholastically in High School.*

In order to assist these students in making a wise decision about whether to enter the University or some other post-high school educational institution, or perhaps go directly into an occupation, the University conducts a special testing and interviewing program. Inasmuch as this program is rather time consuming it has been necessary to set application deadlines for this group of students. Therefore, in order to be eligible to register in a particular session, such students should adhere closely to the following procedure:

1. Submit admission application and all required credentials by deadline, as listed below:
   a. Applicants for the Fall semester 1958: July 25, 1958
   b. Applicants for the Spring semester 1959: December 15, 1958
   c. Applicants for the Summer session 1959: April 20, 1959
2. Complete the special testing program in accordance with the appointment which will be sent to them after the Admissions Office has reviewed their records.
3. Complete the assessment interview which will be scheduled after testing.
4. Notify the Admissions Office *in writing* (after completing the interview) to confirm or cancel the admission application.

   If the admission application is confirmed, admission on *scholastic probation* will be granted.

VI. Admission By Examination

Applicants who do not meet the requirements for admission listed above may qualify for admission by passing one or more examinations

as outlined below. Exception: This section does not apply to applicants who are deficient in the scholastic requirements outlined in paragraphs IV and V, pages 28-30. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.

A. Entrance Examinations

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category:

1. Graduates of Unaccredited High Schools.

   a. Applicants who rank in the top 25 per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

   b. Applicants who are graduates of unaccredited secondary schools and rank below the top 25 per cent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and specific college admission requirements.

2. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of *at least* four units of work in subjects to be designated by the University.

3. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.

4. Applicants who do not meet University admission requirements with respect to total units of credit, total academic units, majors and minor, or subjects required for admission to the college of the applicants' choice may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient.

   These entrance examinations are given three times a year, usually in September, January, and June. Applications to take these examinations must be filed in advance in the Office of Admissions and Records.

   However, only those students who are applying for admission

to the University are permitted to write these examinations.

B. General Educational Development Tests

Veterans of active duty with the United States Armed Forces or with the United States Maritime Service and adult non-veterans (non-veterans twenty-one years of age or older) may qualify for admission to the University by passing the United States Armed Forces Institute General Educational Development Tests under the following conditions:

1. Applicants seeking admission to the *College of Liberal Arts and Sciences* may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. Applicants whose G.E.D. scores are passing but below minimum required for upper-half classification scholastically may qualify if they present high school credit from accredited sources in two successive years of an acceptable foreign language. Applicants desiring to enter specialized curricula in the College of Liberal Arts and Sciences for which mathematics is required (see page 26) may not qualify for such curricula by G.E.D. tests alone, but must present credit from accredited sources in elementary algebra and plane geometry.
2. Applicants seeking admission to the *College of Commerce and Business Administration* or the *College of Engineering* may qualify by passing the G.E.D. tests and presenting credit from accredited sources in the required mathematics.
3. Applicants seeking admission to the *College of Physical Education* may qualify by passing the G.E.D. tests and securing the approval of the Associate Dean of Physical Education.

VII. Special Admissions

A student who is not eligible for admission on one of the plans described above may be admitted, with the approval of the Dean of Admissions and Records and the Dean of the College he wishes to enter, providing he submits evidence which clearly establishes his qualifications to do satisfactory work in the curriculum in which he wishes to enroll.

VIII. Transferring To Urbana

Students attending this division wishing to transfer to Urbana may do so by securing a release from the dean of their college on this campus. This release is then presented to the Recorder, Room 15. Note:

Architecture and Architectural Engineering students may transfer to Urbana only when they have reached the point in their curricula when they cannot obtain a full program of studies on this campus.

IX. Tuition and Fees

A. Semester Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in nine semester hours or more pay tuition of $75.00

Nonresidents registering in nine semester hours or more pay tuition of 250.00

Students taking eight semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in six semester hours or more pay each semester, as insurance for hospital and medical service, a fee of 7.00

(A student who presents evidence of participation in any other group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first ten days of instruction, for a refund of this fee. Refunds are not given on any other basis, but the insurance remains in effect for the entire semester instead.)

Laboratory, Library, and Supply Fee. All students registering in nine semester hours or more pay a laboratory, library, and supply fee of 11.00

Students registering for less than nine hours pay 5.50

Student Activities Fee. All students registering in six semester hours or more pay a student activities fee of 8.00

Deposits. Each student must make a deposit of $5 at the time of his first registration. An additional deposit of $10 ($15 in all) is required of students withdrawing military equipment. Chargeable against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory, military, and other equipment, etc. Any balance on deposit will be returned to the student in case he officially withdraws from the University. This refund of deposit will be made after the close of registration for the next regular semester following the student's withdrawal. The $10 military deposit will be returned to the student, upon receipt of the military equipment, at the end of each school year.

Identification Card. Each student, on payment of tuition and fees each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment. A fifty cent fee is charged for the replacement of lost or destroyed identification cards.

B. Summer Session Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in five semester hours or more pay tuition of $37.50

Nonresidents registering in five semester hours or more pay tuition of 125.00

Students taking four semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in four semester hours or more pay, as insurance for hospital and medical service, a fee of 3.50

(A student who presents evidence of participation in any other group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first five days of instruction, for a refund of this fee. Refunds are not given on any other basis, but the insurance remains in effect during the entire eight weeks of the summer session instead.

Laboratory, Library, and Supply Fee. All students registering in five semester hours or more pay a laboratory, library, and supply fee of 5.50

Students taking less than this amount of instruction pay $2.75 for the summer session.

Student Activities Fee. All students registering in four semester hours or more pay a student activities fee of 4.00

C. Withdrawing From the University

Students leaving the University before the end of a semester or session should initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student being dropped for poor scholarship at the end of the semester.

D. Refunds of Tuition and Fees

In case a student withdraws from the University during the first ten days of instruction, the total amount of his tuition and fees will be refunded. After ten days and before the middle of the semester, a rebate of one-half the tuition and fees will be made. After the middle of the

semester, no rebate will be allowed. In the summer term, the total amount of the tuition and fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week. If a student withdraws from one or more courses thereby reducing his study load to eight or less semester hours in the regular semester, or four or less hours in the summer session, a pro rata refund of tuition and fees will be made according to the rebate schedule, provided that such a reduction of study load occurs during the first ten days of instruction in the regular semester and the first five days of instruction in the summer session.

For refund of the general deposit see section on "Deposits" above. For refund of the Hospital and Medical Service Fee see note on page 34.

E. Miscellaneous Fees

Service Charge for Deferred Fees. A service charge of ten per cent of the amount of fees deferred, but not to exceed $3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded **except** that a minimum service charge of $1 is retained by the University in all cases. The general deposit of $5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration. Arrangements for deferred fees are made directly with the cashier.

Change Fee. For every change of program slip issued at the request of the student, the fee is $1.00

Transcript Fee. Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record.

For each additional transcript the fee is 1.00

Late Registration Fee. Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

Special Examination Fee. For any special examination given in a course which has been failed, the fee is 10.00

Fee to Visit Courses. Persons not connected with the University who attend the classes as visitors pay for each course 10.00

Persons, visiting courses, withdrawing within ten days after paying their fees, may receive a full rebate of the visitor's fees. No rebate is allowed after this date.

Duplicate Identification Card Fee ..... .50

X. Veterans' Information

The Chicago Undergraduate Division has been approved to offer training under the following veterans educational benefits acts: Public Law 346, the World War II G.I. Bill; Public Law 550, the Korean G.I. Bill; and Public Laws 16 and 894, the Vocational Rehabilitation Acts. Questions concerning benefits under these laws may be referred to the Veterans Section, Office of Admissions and Records.

The University of Illinois has established the Office of Veterans' Counselor in the Office of the Dean of Students, Room 313. As a collateral duty, the Dean of Students gives special attention to the particular problems of veterans.

Authorization

To enroll under one of the above benefits at the Chicago Undergraduate Division, an applicant, in addition to applying for admission to this Division, must take the following steps:

Determine the course in which he will register and the highest degree toward which he plans to work. If there is any doubt as to the final vocational objective or the course to follow to reach it, some type of educational and vocational counseling should be received before completing application to the Veterans Administration.

Make application to the Veterans Administration, 2030 West Taylor Street, Chicago, for the proper training authorization. A copy of service separation papers must accompany this application. Applications should be filed as early as possible, and not later than the first day of classes.

The training Certificate received from the Veterans Administration should be brought to the University on the day of registration for classes. It will not be accepted before that time. Certificates received after the beginning of classes should be turned in at once to the Veterans Section, Office of Admissions and Records, Room 15.

Transfers Under the G. I. Bill

Veterans transferring from another school under the G. I. Bill must obtain a notice of interruption from that school (Form 7-1995) and submit it to the Veterans Administration when requesting a supplemental training certificate for this University.

Veterans transferring between divisions of the University of Illinois must follow the above procedure for changing schools.

Choice of Course

Veterans applying for any educational benefits should be extremely cautious in choosing their courses. The veteran may jeopardize his benefits if he fails to do satisfactory work in the original course. If assistance

in choosing the correct course is desired, the facilities of the University Student Counseling Service are available at all times (see page 42). The Veterans Administration also will provide free counseling for any veteran.

Special Provisions

The fees listed on page 34 are payable at the time of registration for classes. The Veterans Administration will mail the first allotment check about six weeks after a veteran enters training.

The University of Illinois is required by the Veterans Administration to submit a monthly attendance report for each veteran enrolled under P. L. 550.

Public Laws 16 and 894

Students receiving educational benefits under either of the federal Vocational Rehabilitation Acts should be certain that there is an authorization on file for them at the University by the time they are to register for classes. Early application for training should be filed with the Veterans Administration Training Officer.

Military Scholarship

Any person who served in the armed forces during World War I or any time between September 16, 1940 and the official termination of the present national emergency and received an honorable discharge may qualify for a four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time of entering service.

No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and Records, Room 15, Window E. The Military Scholarship may not be used during any period when the veteran is receiving financial aid for his education from the federal government.

Credit for Military Service

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service may be transferred upon the basis of evaluation by the Examiner and Recorder.

XI. Selective Service Deferment

The office of Admissions and Records will supply the required certificates for students who wish to apply for educational deferments under the regulations of the Selective Service System. Application should be made at Window E, Room 15, at the time the student completes his classification questionnaire. Information concerning educational deferments is available from this office.

SCHOLARSHIPS

Several types of scholarships are available to undergraduate students in the University of Illinois. Some of these are the County Scholarships awarded on the basis of a competitive examination administered each April by the County Superintendent of Schools, the State Military Scholarships, the General Assembly Scholarships, and, in addition, a number of scholarships awarded by the University Scholarship Committee each spring for the following school year. All the scholarships offered, and the individual requirements, are listed in an information folder available upon request from the Office of Admissions and Records or from the Office of the Dean of Students at Navy Pier.

Undergraduate scholarships usually cover tuition charges only. Although some are available only to students in a specific course, the majority may be used in any of the colleges. Students now enrolled may apply for a scholarship for any year; a few scholarships, however, may be awarded only to applicants without college experience. Information regarding scholarships may be obtained from the Office of Admissions and Records, Window E, Room 15, or from the Office of the Dean of Students.

LOAN FUNDS

Loan funds have been established for the benefit of worthy students at the University who are in need of financial aid. These funds are of two general classes: (1) emergency loan funds which must be repaid within the semester or term, and (2) long term loan funds which may not become payable until the student graduates or leaves school. Most of these funds have special requirements which must be met by applicants.

Application blanks and detailed information regarding loan funds may be obtained from the Office of the Dean of Students, Room 313.

STUDENT EMPLOYMENT

For students who find it necessary to earn a portion of their expenses, there is a Student Employment Service in the Office of the

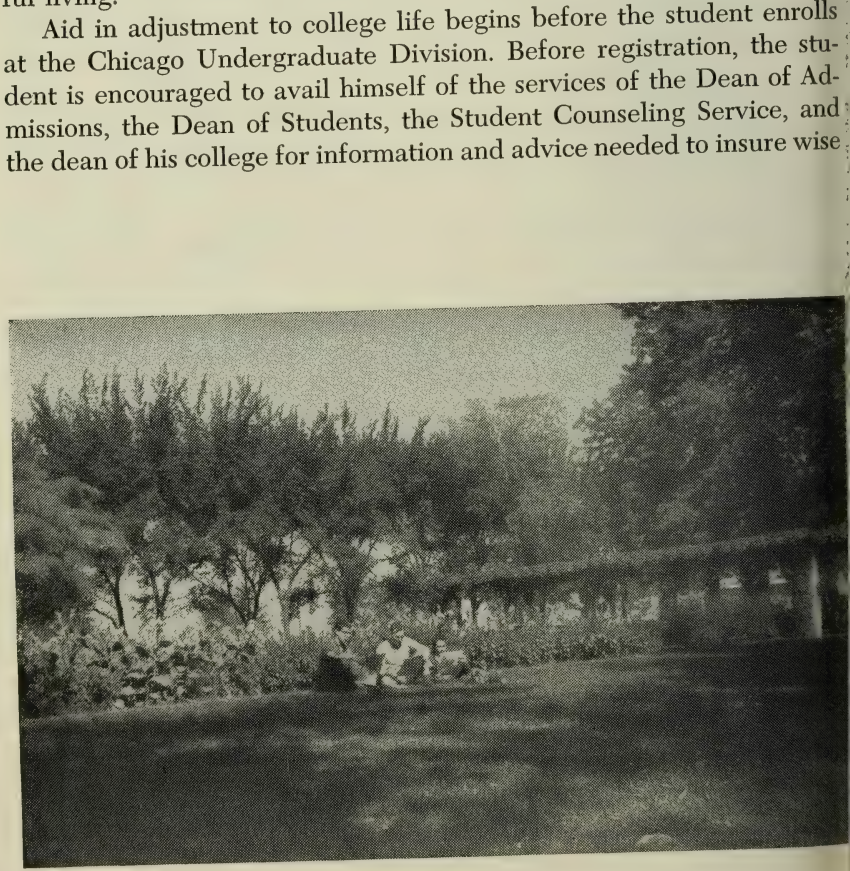
Dean of Students. While this service does not guarantee to find a job for anyone, it does provide information and assistance to deserving students seeking part-time jobs in University offices and in business or industry in the Chicago area. Applications for part-time jobs should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule, at the time of registration, so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity rather than choice.

STUDENT WELFARE SERVICES

The University's interest in the individual student extends beyond the classroom to include the personal adjustment of each student to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling; extracurricular activities, both social and cultural; and advising and instruction in healthful living.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division. Before registration, the student is encouraged to avail himself of the services of the Dean of Admissions, the Dean of Students, the Student Counseling Service, and the dean of his college for information and advice needed to insure wise



planning for his college career.

At registration time, an adviser helps the student select and arrange his courses, and a special meeting affords him the opportunity to meet the deans. The deans of the various colleges, the heads of departments and all members of the faculty devote a large part of their time to advising students concerning their classroom work and programs. Students are urged to discuss specific educational problems with their instructors, who hold scheduled office hours for conferences with individual students. The problems of student welfare outside the classroom are handled chiefly by the Dean of Admissions, the Dean of Students, and the Student Counseling Service.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students is in charge of most matters of student welfare and extracurricular activities. The principal assistants to the Dean of Students are the Dean of Men, the Dean of Women, and the Assistant to the Dean of Students. These are the administrative advisers to whom students may go for information and advice concerning student activities, insurance, loans, employment, personal problems, the interpretation of University regulations, and other matters. The offices of these advisers are open to any student throughout the day, and inquiries from parents and guardians are welcomed. Details concerning the services of the Office of the Dean of Students are outlined in the following sections.

Dean of Students. The Dean of Students is the administrative officer who is primarily responsible for the welfare of the student outside the classroom. He is charged with the direction, supervision, and coordination of the University agencies which are active in the guidance of students in extracurricular activities, and he participates directly through his chairmanship of the Administrative Committee on Finance and Audit for Student Organizations, through his duties as secretary of the Undergraduate Division Organizations Fund and his work as financial adviser to student organizations, and through his membership on the Committee on Student Affairs. The Dean of Students also serves as veterans counselor, as adviser to foreign students, as administrator of the voluntary Hospital and Medical Insurance plan for the faculty and staff, and as supervisor of the compulsory student plan.

Dean of Men. The Office of the Dean of Men is organized for the primary purpose of aiding men students. At the present time, the duties of this office are being performed by the Dean of Students with the help of his Assistant. The work of the Dean of Men includes counseling and advising students on any matters which they may wish to bring to him. The Dean of Men takes an active part in student extracurricular

activities. He also serves as adviser to Phi Eta Sigma, national scholastic honorary for first-year men students; and as vice-president of the Parents Association. All official University requisitions for student organizations, events, and affairs are initiated by the Dean of Men upon receipt of a written request from the student group concerned.

Dean of Women. The Dean of Women is concerned with the general welfare of women students. One of the main functions of the Dean of Women is the guidance of women students in meeting problems of personal adjustment to campus life—academic, social, personal, extracurricular, and financial. Besides being available daily for individual counseling, the Dean of Women serves as adviser to Alpha Lambda Delta, the national scholastic honor society for freshman women, the Activities Honorary Society, and the University Dance Committee. As Chairman of the Administrative Committee on Social Events, Calendar, and Recreation, the Dean of Women coordinates all student social events, assists students in planning and organizing special events, and offers assistance in planning many All-University functions. By serving on several University Committees, the Dean of Women is able to interpret the needs of women students to the administration.

Prospective students, who visit the Chicago Undergraduate Division to discuss admissions and curricula and/or to take Freshman Guidance Examinations, are invited to include a visit to the Office of the Dean of Women for further assistance—Room 313B.

Assistant to the Dean of Students. The Assistant to the Dean of Students is responsible for handling such duties as may be delegated to him by the Dean of Students. These include the administration of the Student Hospital and Medical Insurance Plan, advice and assistance to all extracurricular activities, approval of room reservations and publicity for student activities and events, and conferences with individual students as required.

STUDENT COUNSELING SERVICE

The services of this department are available to both registered and prospective students. Counseling and clinical psychologists are permanent staff members of this department, and help students profit from the facilities of the University by making more effective use of their intellectual and personality resources. Student Counseling includes the following activities:

A. Individual Counseling. This program is designed for the student with problems of adjustment to school and personal activities. Personal counseling may help him deal more effectively with his present situation, and to choose more appropriate goals.

B. Group Services. Each semester (including summer sessions) the Student Counseling Service conducts special study groups dealing with a variety of specific study problems: reading improvement, mathematics study skills, note-taking, vocabulary building, preparation for examinations, and learning methods for studying other courses and course materials. These programs are designed for students with problems in corresponding areas of college work, as well as for those students who are making satisfactory progress but want to further improve their study skills.

C. Vocational and Occupational Services. In conjunction with the University Library, the Student Counseling Service maintains one of the most comprehensive and up-to-date files of job information available in the State of Illinois. Facts and figures about qualifications and preparation, pay scales, employee demand, and the advantages and disadvantages of occupations are easily accessible to students.

D. Test Services. The Service administers a comprehensive battery of Freshman Guidance Tests to prospective and entering students. Each participant may review his test results with a counselor as an aid to self-appraisal and planning. Counselor and student may agree that further testing is needed, to supplement the Freshman Guidance battery.

Facilities are available for individual testing of aptitudes, vocational and academic interests, and personal-social adjustment. Arrangements for individual assessments are made after discussion with a staff psychologist clarifies the need for testing.

E. Location. The Student Counseling Service is located on the third floor at the east end of the Pier, adjacent to the third floor student lounge in Room 300. Appointments for interviews are arranged by the departmental receptionist. Additional information may be obtained at the reception desk, or by calling WHitehall 4-3800, extension 115.

THE SPEECH IMPROVEMENT LABORATORY

The services of the Speech Improvement Laboratory are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who have foreign accents, hearing deficiencies, or vocal, rhythmic, or articulatory problems are aided by the Laboratory, which also assists students with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical, teaching, or speech careers are aided in meeting professional speech requirements. There are no fees for these services, but some students may be asked to purchase a blank recording disk in order that permanent recordings of their voices may be made. The Speech Im-

provement Laboratory is located in the Student Counseling Service area on the third floor. It is advisable to make appointments in advance.

HOSPITAL AND MEDICAL SERVICE INSURANCE

All students enrolled and in attendance at the Chicago Undergraduate Division are eligible for the accident and health insurance by paying the hospital and medical service fee. Students not taking the required number of undergraduate hours to be automatically assessed the hospital and medical service fee may elect to take the coverage by making application to the Cashier's Office after completing registration (within two weeks). Eligible dependents of insured students, including spouse and unmarried dependent children under nineteen years of age, may also be insured by application of the student to the Cashier's Office within two weeks of his registration each semester.

Students intending to enroll for the first semester of the next academic year may elect to take the insurance for the entire summer vacation period by making application at the Cashier's Office between May 15 and June 15. The insured student's eligible dependents may also be included for this coverage.

Students enrolling in the summer session who are assessed the hospital and medical service fee are covered only through the date of their last final examination of that session, and not for the entire summer unless they have met the requirements stated in the preceding paragraph.

This insurance plan provides specific benefits under each of the following types of situations: (1) when the student is hospitalized for twelve hours or more, there are benefits for doctor and hospital; (2) when any surgery is performed, a surgical benefit is provided; (3) when a student sustains an accidental injury, there is a limited allowance for treatment during the next seven days; (4) when the student is confined at home because of illness, and the doctor calls at the home, there is a limited benefit for doctor visits and for medicines; (5) when an ambulance is required, there is a benefit limited to $25 maximum; and (6) under item 1 above there is a catastrophy benefit when the basic benefits pay less than two-thirds of the total bills incurred, and there is a consultant benefit up to $25 when approved by the Director of the University Health Service. Students are urged to read the certificate given to them at registration to determine the exact benefits that apply to specific situations. If the student did not receive a certificate at the time of registration, or if there are questions pertaining to this insurance, the individual should request the Office of the Dean of Students Student Insurance Administrator, University of Illinois, Navy Pier, Chi

cago 11, Illinois to supply the necessary information. The telephone number is WHitehall 4-3800, extension 112 or 113.

The entire hospital and medical service insurance fee is expended for sickness and accident insurance to cover each individual student. No portion of this fee is utilized for the maintenance of the University Health Service.

EXTRA-CURRICULAR ACTIVITIES

Student extra-curricular activities are recognized as an important part of the student's life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. All questions pertaining to extra-curricular activities should be directed to the Office of the Dean of Students, Room 313.

CLUBS AND ORGANIZATIONS

Many student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body. Interested students are invited to join the club or organization of their choice, but before participating in any extra-curricular activity, a student on scholastic probation must have permission in writing from the Dean of the College in which the student is enrolled. The majority of student activity groups meet weekly or twice monthly during the scheduled activity hour on Tuesday of each week and on the second and fourth Thursdays of each month.

Administration. Student activities and student government are under the supervision of the Dean of Students with the assistance of the Committee on Student Affairs, the Student Congress, and the joint student-faculty Administrative Committees made up of members of the two above-named groups. The function of each group is as follows:

(1) The Committee on Student Affairs is an official body, made up of students, faculty, and administrative personnel. Members are appointed and always include the officers of the Student Congress. Major policies and decisions relating to student activities and student government are referred to this committee by the Dean of Students.

(2) The Student Congress is composed of four officers and twenty representatives. The officers and ten of the representatives are elected by a vote of the entire student body at a general election each year; the other ten representatives are elected by student organizations to provide one representative for each of ten groups of student activities. Like the Committee on Student Affairs, the Student Congress reports recom-

mended policies and decisions to the Dean of Students for his official approval.

(3) Joint student-faculty Administrative Committees assist in the supervision of student organizations. Each of these seven Committees is composed of a faculty representative from the Committee on Student Affairs and two members of the Student Congress. The Administrative Committees review all matters referred to them, and make recommendations to the Committee on Student Affairs and the Student Congress for appropriate action.

Types of Activities. The student clubs and organizations open to students at the Chicago Undergraduate Division are many and varied. If the kind of activity which the student desires is not listed in the following paragraphs, he should consult the Dean of Students. New groups are formed when sufficient interest is apparent, and the type of organization which is proposed meets University requirements.

Opportunities for experience in journalism are provided by the weekly student newspaper, the *Pier Illini*, written and edited entirely by students. Winner of eight All-American awards presented by the Associated Collegiate Press, *Pier Illini* is open to all students with an interest in any form of writing, art, photography, etc. It offers students practical experience in newspaper work before they attend a professional journalism school. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph*, the University of Illinois engineering periodical. Contributions of student members to the publication of the UIC Writer's Club, *Mosaic*, and of members of Alpha Lambda Delta in producing *Chi-Illini Cues* likewise offer opportunities to students interested in journalism.

The Pier Glass, published once each semester, is a magazine of the best themes written in freshman Rhetoric. The ten or twelve students whose essays are chosen receive prizes, as well as the honor of being represented in the anthology and the satisfaction of seeing their work in print. Competition is keen, and every Rhetoric section spends a class meeting in the friendly criticism of the current issue, comparing the merits of the prize-winning papers.

Cultural programs which supplement classroom work for students are offered by the Activities Honorary Society, the Cadet Association, Forensics Honorary (Pi Kappa Delta), Pershing Rifles, and the Student Education Association. Similar purposes are served by three language clubs, and the Amateur Radio, Biology, Chess, Commerce, Geology, Flying, Humanities, International Relations, Inter-Varsity Christian Fellowship, Jazz, Lituanica, Mathematics, Newman, and Vets Illini Clubs. Engineering, architecture, chemistry, pre-dental, pre-law, and pre-med-

ical students may take part in the activities of their respective professional societies of which several are affiliated with national professional organizations. Athletic and physical education organizations include the Varsity Lettermen's Club, the Co-Recreation Association, the Cheerleaders, Orchesis (the modern dance organization), the Women's Athletic Association, and the Women's Physical Education Majors Club.

Students who achieve a grade average of 4.5 during the freshman year may be eligible for membership in one of the national honor fraternities. Women who make an average of 4.5 in 15 hours of academic work during their first semester, or an average of 4.5 in 30 hours during their first year, may be initiated into Alpha Lambda Delta. Men whose average is 4.5 based upon 12 or more hours in the first semester, or 4.5 for the entire freshman year, are eligible for membership in Phi Eta Sigma.

Opportunities for experience in music and drama are available through membership in the University Band, the University Choir, the University Orchestra, and the Pier Playhouse. Students who enroll in the musical organizations at registration and meet other requirements may earn academic credit for this work if they so desire. Several musical programs and plays are presented publicly each year.

All-University dances are sponsored by the University Dance Committee—a sub-committee of one of the seven Administrative Committees previously described. Both formal and informal dances are scheduled each year.

A committee composed of students and staff members is also appointed each year to direct, plan and supervise a Spring Carnival for the purpose of providing an all campus event, to allow students an opportunity to make a contribution to benefit the University, and to enable student organizations to increase funds in the treasury.

CONVOCATIONS

Each year, six All-University convocations are presented to give students an opportunity to hear outstanding speakers discuss important topics and to present other cultural programs of general interest. These programs are financed by a portion of the student activity fee which is assessed at registration, and admission is free to all students within the seating limitations of the University Auditorium. Selection of programs and other administrative details of convocations are handled by the Convocations Committee.

In addition to the six regular convocations, there is an Honors Day Convocation once each year which is arranged by a special Honors Day Committee. Other special convocations are arranged to meet needs of major significance.

Convocations are held during the activity hour the third Thursday of October, November, December, February, March, and April each year. Honors day is usually held at 10 a.m. on the second Friday of May.

THEATRE AND CONCERT SERIES

By means of a Theatre and Concert Series, the University introduces its students to the cultural and intellectual life of Chicago.

At the beginning of the fall semester, sets of coupons are placed on sale through the University Bookstore at a substantial discount. These coupons are redeemable for tickets for specific performances. Included in the series are an opera, a ballet, a symphony concert, a play and an art movie. Thus the series is a generous sampling of worthwhile entertainment.

DEBATING

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating, discussion, and individual events. All students, including those without previous experience, may take part in the forensic activities.

The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the area have included colleges and universities from Florida, Texas, Iowa, Michigan, Missouri, Ohio, and New York. Speakers from the Chicago Undergraduate Division also attend tournaments in Illinois and nearby states, where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition. It has won the Chicago Area, the state, and the regional championships, and in 1952, 1953, 1954, 1956 and 1958 represented the East Central States area in the national championship tournament at West Point, New York.

Problems of national and international interest are the topics for public discussion and panel presentations, both on and off campus. These programs, usually followed by audience participation, are sometimes joint presentations with other colleges and universities. Chicago Undergraduate Division speakers are often featured on adult forum programs.

The Chicago Undergraduate Division serves as national headquarters for the National Contest in Public Discussion. It holds membership

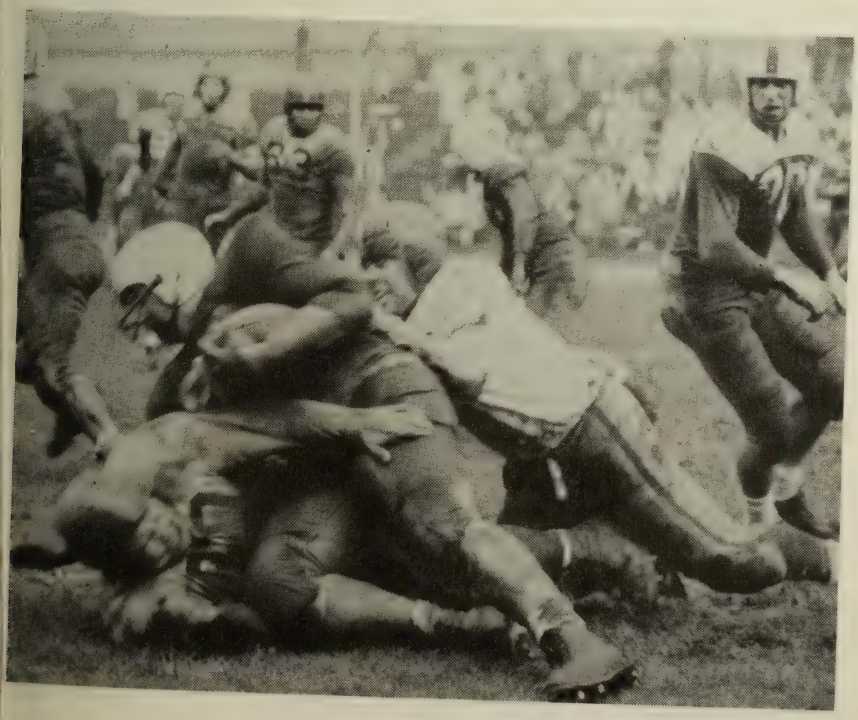
in the Illinois Intercollegiate Debate League, the Illinois Intercollegiate Oratorical Association, the Chicago Area Debate League, and Pi Kappa Delta. The last of these is a national honorary with 31,000 members and chapters in approximately 270 colleges and universities.

The Chicago Undergraduate Division has been host for some noteworthy forensic events. The Cambridge university debate team met two UIC speakers before an audience of 2,200 in the fall of 1955, and in the spring of 1957 the annual tournament of the Illinois Intercollegiate Debate League was held on this campus. The annual Freshman-Sophomore tournament in December has attracted as many as thirty-nine visiting colleges from eight states, and the annual tournament for high schools in January includes leading teams located within seventy-five miles of Chicago.

ATHLETICS

The Chicago Undergraduate Division participates in eleven varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, soccer, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen in good standing are allowed to participate in varsity sports.

A special feature is the extensive intramural program in which stu-



dents can elect to take part in wrestling, badminton, table-tennis, volleyball, basketball, gymnastics, handball, weight-lifting, tennis, track, and softball. The intramural and intercollegiate programs are under the supervision of an athletic committee of student and faculty representatives. Both programs are financed through funds from student activities fees. The Chicago Undergraduate Division Gymnasium, adjacent to the entrance of the main building, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the gymnasium which has floor space for eight full-size basketball courts.

A staff of sixteen coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

UNIVERSITY SERVICES

UNIVERSITY LIBRARY

The Library offers an opportunity for students and faculty to have accessible all the books, pamphlets, periodicals, maps, phonograph records, and other materials required in their classroom work and for recreational and research activities. At present the book collection totals 85,000 carefully chosen volumes. The Library is receiving over 700 magazines and journals and the most important general indexing service publications. Back files for many of these titles have been bound and are available for permanent reference use on open shelves.

An excellent collection of 6,500 general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories has been assembled. Extensive collections of pamphlets, vocational guidance materials, and college catalogs are provided. A comprehensive card catalog and modern microprint and microfilm reading machines are also available. The Library also has the catalogs of the U. S. Library of Congress, the Bibliotheque Nationale of France, and the British Museum Library.

While no attempt is made to duplicate scholarly research collections and facilities in the city, every means is used to encourage greater use of library materials. Emphasis is placed on individual, personal service to faculty and students through general reference and readers' advisory assistance plus the library staff liaison with the teaching program and student activities. Formal and informal instruction in the use of library resources and facilities is offered to all undergraduates. Displays of new

and outstanding books of special and unusual interest are maintained in the reading rooms and on the bulletin boards in the lounges and corridors.

The Library includes three service areas. (1) The open-shelf Main Reading Room is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities in addition to well-lighted study space for several hundred readers. It also contains the non-musical phonograph record and tape collection which includes plays, poetry reading, speeches and language lessons. (2) Located near the west end of the Pier is the Reserve Book Station which makes assigned reading materials conveniently available. (3) The Fine Arts Reading Room is at the far east end of the Pier on the second level. It contains the collection of art, architecture, and music books and offers special facilities for listening to musical recordings. It also has a lending service for art reproductions.

While classes are in session the Main Reading Room is open Monday through Friday from 8 a.m. to 4:30 p.m. The Reserve Book Station and the Fine Arts Reading Room are open Monday through Friday from 8:30 a.m. to 4:30 p.m.

UNIVERSITY BOOKSTORE

The University Bookstore is operated by the University to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

The Bookstore is located at Room 87. It is open daily, Monday

through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8:30 a.m. to 6 p.m.

FOOD SERVICE

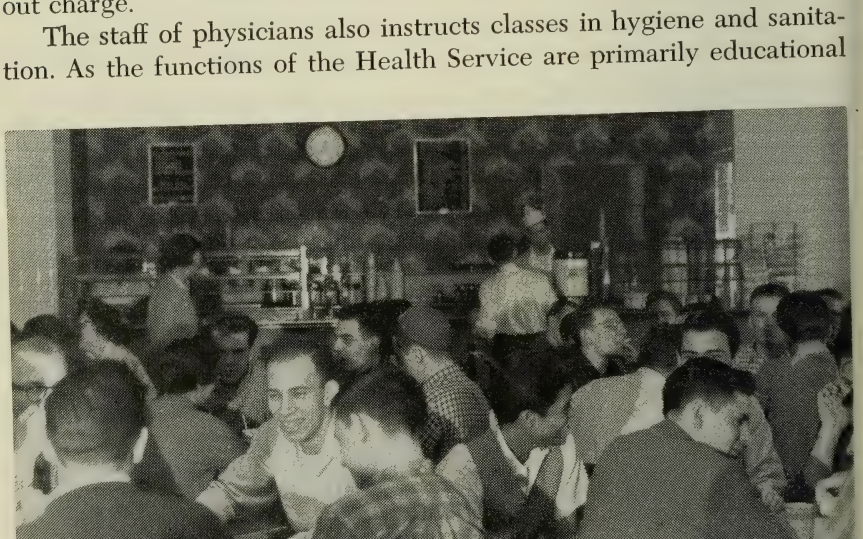
The University operates non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the building. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the building, adjacent to the reception lounge. In addition, a dining room at the east end of the building offers cafeteria-style service to members of the faculty and staff.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff of the University Health Service, are required of all students prior to the time of their first registration. Chest X-rays are required as part of the physical examination. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students without charge.

The staff of physicians also instructs classes in hygiene and sanitation. As the functions of the Health Service are primarily educational



and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations.

It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5 p.m. daily and during vacation periods.

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be started in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Men and women entering the University with less than sixty semester hours of credit are required to secure four semesters of credit in physical education including the amount transferred. Those entering with sixty semester hours or more are exempt from the requirement in physical education.

2. Two semesters of rhetoric (Rhetoric 101 and 102) are required. All students entering the University as freshmen direct from secondary schools are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

THE GRADING SYSTEM

The following grades are given in the University of Illinois: A—Excellent, B—Good, C—Fair, D—Poor (lowest passing grade), E—Failure.

The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean

of his college and on payment of a fee of $10 (but not within ten days of the final examination period), or he may take courses in sequence, with the approval of the department.

Other symbols in use are:

W—Withdrawn from the course without penalty.

Ex—Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee, but becomes a failure if not removed during the first semester that the student completes in residence following the giving of the grade of "Ex.")

Ab—Absent from the final examination without excuse; counts as a failure. See under "Failure" for method of earning credit in a course in which an "Ab" grade has been received.

Rep—Replaces grade of "Ex" when course in which "Ex" grade was received is repeated by the student.

Inc—The grade of "Incomplete" is no longer authorized except in the required work in physical education. Except in this department instructors are required to assign a definite grade representing both the quality and the quantity of the work accomplished.

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A = 5 grade points; B = 4; C = 3; D = 2; E = 1; Ab = 1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn three hours of A, six of B, three of C, two of D, and four of E, the computation of your grade-point average is as follows:

Grade	Hours	Weight	Grade Points	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	
E	4	1	4	56
	—		—	— = 3.111
	18		56	18

Your grade-point average is 3.111.

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Through knowledge of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for freshmen and sophomores. Although the factual contents of many of the courses are directly useful in specific vocations, students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible to avoid the narrowing effects of early specialization.

The courses required and available in the first two years in this college are primarily organized to serve as a foundation for building the study in a field of concentration in the junior and senior years.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the School of Journalism and Communications. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Another group of students has not been forgotten. This group comprises those who will not be able to attend school for more than one or two years. The program is so arranged that the maximum benefit of basic business knowledge can be obtained in that more limited period.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must:

1. Fulfill general University requirements as to registration, residence, scholarship, and fees.

2. Have a total of 130 credit hours of which not less than sixty credit hours must be in Accountancy, Business Law, Economics, Management, and Marketing. Business Education courses may be included in the fields of Commercial Teaching and Secretarial Training. In

Commercial Teaching and Commerce and Law only forty-five such hours are required, while in Industrial Administration and in Personnel Management the number of such hours is fifty.

3. Complete courses included in University requirements, College General Education requirements, and College General Business requirements. (See pages 58 and 59.)

4. Complete the requirements for one of the fields of concentration. (See page 59.)

5. Have a minimum average of 3.0 for all courses counted toward graduation, and a 3.0 average for those courses taken at this university.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include business law, management, marketing, anthropology, history, philosophy, political science, psychology, and sociology, as well as additional courses in geography, mathematics, science, literature, foreign language, art, architecture, or music. Any advice desired on these electives may be obtained at the office of the dean or from the adviser at the time of registration.

Commerce and Law

Students interested in obtaining a legal education may take their pre-legal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business, corporation or income tax law. The general requirements are the same as those for all Commerce students shown on page 58. The third year includes requirements of special value to the pre-law student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 100 hours in the College of Commerce and Business Administration and thirty hours in the College of Law, including all required courses and all other graduation requirements, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. The approved program for this field for the first two years is shown on page 59.

Prejournalism

Students desiring to enter the College of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The general program for this purpose is the same as that shown below.

Requirements for All Commerce Students

(Except Commercial Teaching)

	CREDIT HOURS	NORMAL SEMESTER
I. University Requirements. All available at the Chicago Undergraduate Division.		
Military[1]	4	1, 2, 3, 4
Physical Education	4	1, 2, 3, 4
Rhetoric 100[2], 101, 102	6	1, 2, (3)
Total	14	
II. College General Education Requirements. All available at the Chicago Undergraduate Division		
Economics 100—Introduction to Business (strongly recommended)	(3)[3]	1
Economics 136—Economic History of the United States, or Economics 138—Introduction to the Economic History of Modern Europe, or Geography 105—Introductory Economic Geography	0 to 3[3]	2
Literature or Language[4]	6 to 16	3, 4
Mathematics 103—Introduction to College Algebra and Mathematics 112—College Algebra[5]	0 to 3	1, 2
Rhetoric 151—Business Letter Writing	3	3 or 4
Science or Advanced Mathematics[6]	4	1 or 2
Social Science (Anthropology, History, Philosophy, Political Science, Psychology, or Sociology) a minimum of six hours; a minimum of three hours of advanced economics	9 to 12	3 or 4
Speech 101—Principles of Effective Speaking	3	1, 2, 3 or 4
Additional hours in Language, Literature, Advanced Mathematics, Science, Social Science, Art, Architecture, Music, and Geography to bring the total of this group, excluding Economics 100, to 36 credit hours	0 to 11	
Total	36	
III. College General Business Education Requirements. All except those shown with an asterisk are available at the Chicago Undergraduate Division.		
Accountancy 101—Principles of Accounting	3	1
Accountancy 105—Accounting Procedure	3	2
Accountancy 106—Elementary Cost Accounting (recommended), or Accountancy 108—Intermediate Accounting	3	3
Business Law 100—Basic Principles of Business Law	3	4
Economics 102, 103—Principles of Economics	6	3, 4
Economics 170—Elements of Statistics	3	4
Economics 250—Money, Credit, and Banking*	3	
Economics 254—Business Finance*	3	
Management 101—Industrial Organization and Management	3	4
Marketing 101—Principles of Marketing	3	4
Commerce electives*	6	
Total	39	

[1] Not required if first sixty credit hours are taken at the Chicago Undergraduate Division.

[2] Not required unless placement examination so indicates.

[3] For freshmen only. Students with thirty credit hours or more should not take this course.

[4] If literature is elected, six hours of American or English literature requiring sophomore standing will satisfy the minimum requirement. If language is elected, it must be a modern foreign language and the equivalent of four semesters when pursued in college must be taken to satisfy requirements.

[5] The placement examination will determine the mathematics course the student will take. Each student must have Mathematics 112 to complete this requirement, unless the placement test indicates that he already has knowledge equivalent to this. The only students exempted from the placement test are those who have college credit in college algebra.

[6] If science is elected it may be any laboratory science (geography is not included here). If mathematics is elected it may be any course in advance of college algebra, trigonometry included.

IV. Field of Concentration Requirements and Free Electives.

Sufficient credit hours must be taken here to make a grand total of 130 credit hours. None of the required courses in the fields of concentration are available at the Chicago Undergraduate Division.

Fields of Concentration:

- Accountancy
- Commerce and Law
- Commercial Teaching (special program)
- Economics of Government and Business, Public Utilities, and Transportation
- Economic Theory
- Finance
- General Economics (eight sub-fields)
- Industrial Administration
- Insurance (two sub-fields)
- Labor Economics
- Management
- Marketing (nine sub-fields)
- Personnel Management (three sub-fields)
- Secretarial Training
- Statistical Economics (six sub-fields)
- Urban Land Economics

Further information about any of these fields of concentration or any other academic questions arising in connection with any of the above material should be directed to the Associate Dean in charge of the College of Commerce and Business Administration, Room 27.

Curriculum Preparatory to Teaching Commercial Subjects

FIRST YEAR — FIRST SEMESTER	17 HOURS
Accy. 101—Principles of Accounting	3
Biology 101—Fundamentals of Biology	4
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Math. 112—College Algebra[1]	3
Rhet. 101—Rhetoric and Composition[2]	3
Physical Education	1

SECOND YEAR — FIRST SEMESTER	16 HOURS
Accy. 106—Elementary Cost Accounting	3
Econ. 102—Principles of Economics	3
Geog. 105—Introduction to Economic Geography	3
Rhet. 151—Business Letter Writing	3
Speech 101—Principles of Effective Speaking	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Accy. 105—Accounting Procedure	3
Biology (Botany or Zoology)	4
Ed. 101—The Nature of the Teaching Profession	2
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Rhet. 102—Rhetoric and Composition[2]	3
Physical Education	1

SECOND SEMESTER[3]	17 HOURS
Econ. 103—Principles of Economics	3
Hist. 152—History of the United States	3
Mktg. 101—Principles of Marketing	3
Psych. 100—Introduction to Psychology	4
Sociol. 100—Principles of Sociology	3
Physical Education	1

[1] May require adjustment. See note 5 above.

[2] May require adjustment based on placement examination.

[3] If there is room for electives, they could include Business Law 100; Political Science 150 as specific requirements; Accountancy 108, American or English Literature, or Philosophy 105 as option electives; Management 101 as a free elective. Whichever ones are chosen would affect the junior or senior program in that respect.

COLLEGE OF ENGINEERING

To prepare men for professional work in engineering and architecture and for responsible positions of a technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and engineering sciences and their applications to the design, construction, and operation of industrial plants, buildings and homes, and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems similar to those of practicing architects and engineers. The curricula in architecture in the College of Engineering are offered under the Department of Architecture and Art. A discussion of the curricula in architecture is presented following the curricula in engineering.

In addition to the fundamental and technological courses in each curriculum, cultural courses are required, such as history, economics, and rhetoric. Other courses are elective and are presented to provide the student with an awareness of the urgent problems of society and to develop a deeper appreciation of the cultural achievements of man. These socio-humanistic courses, recognized as fundamental background for the achievement of a full life are drawn from liberal arts, sciences, economics, sociology, fine and applied arts, and other sources.

At the Chicago Undergraduate Division the first two years are offered in the fields of aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, industrial engineering, mechanical engineering, metallurgical engineering, mining engineering, theoretical and applied mechanics and the combined liberal arts-engineering curriculum. Those few required courses which are not available here are noted.

Instruction is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois to complete the courses leading to the degree.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curricu-

lum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work consisting of thirty to thirty-six semester hours, acceptable to the faculty of this college, providing plans have been made toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Nontechnical electives include all courses in the College of Liberal Arts and Sciences except those in mathematics, chemistry, and chemical engineering; all courses in the College of Commerce and Business Administration; Architecture 113; Art 111, 112, and 115. The student may petition to receive credit for other courses which conform to the objectives of what are known as the social-humanistic studies. It is expected that the student will consult with his departmental adviser when selecting his nontechnical electives.

Each curriculum offers some elective opportunities, which may be specified as technical, non-technical, social science or humanities. These elective courses must be chosen from department approved lists. Social Science and Humanities includes courses usually drawn from the following fields: Art, Classics, Division of General Studies, Economics, English (not including Rhetoric), Foreign Language, History, Humanities, Philosophy, Political Science, Psychology and Sociology. Each curriculum requires a minimum of 12 hours of courses in these fields. One or more of these courses may be specified in the printed curriculum.

Transfer students may substitute survey courses of nontechnical areas for their nontechnical electives, although circumstances may dictate some reduction in credit.

Departmental electives and technical options are restricted to courses of a technical character as listed under this classification by each department. Options are groups of related courses in a special field of subject matter.

Some of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by curriculum options, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

The entrance requirements to the College of Engineering in mathematics are three and one-half units: algebra, two units; plane geometry,

one unit; and trigonometry, one-half unit. It is recommended that students also take solid geometry in high school. Students continue to be admitted on the basis of a minimum of one unit each in algebra and plane geometry, but they are required to make up the deficiencies during their first year in college. This delays their graduation one semester unless steps are taken early to offset the deficiencies. It is recommended that such students attend a summer session preceding entrance into college or immediately following their first year, thus eliminating the extra semester at the end. A mathematics placement examination is given to all students presenting three and one-half or four units of high school mathematics. A passing grade on this examination is required for a student to enroll in analytic geometry the first semester. Students having college credit for algebra and trigonometry are not required to take this examination.

Freshman students who have had a year of chemistry in high school and rank in the upper one-fourth of their graduating classes are allowed to omit Chemistry 102 and 104 and substitute Chemistry 109, a five-hour course, and two additional hours of electives.

Transfer students should follow the curriculum listed in the Undergraduate Study bulletin for the year in which they enter the University of Illinois.

Common Program for Freshmen, All Engineering Curricula

FIRST YEAR FIRST SEMESTER	15 OR 16 HOURS
Chem. 102 or 103[1]—General Chemistry	3 or 4
G.E. 100—Engineering Lectures	0
G.E. 101—Elements of Drawing	3
Math. 123—Analytic Geometry[2]	5
Rhet. 101—Rhetoric and Composition	3
Physical Education	1

SECOND SEMESTER	18 HOURS
Chem. 104—Chemistry of Metallic Elements[1]	4
G.E. 102—Engineering Geometry	3
Math. 133—Calculus	3
Physics 106—Mechanics	4
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

Curriculum in Aeronautical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	17 HOURS
Math. 143—Calculus	5
M. E. 182—Manufacturing Processes	3
Physics 108—General Physics (Heat, Sound, Light)	4
Modern History or Political Science	4
Physical Education	1

SECOND SEMESTER	17 HOURS
Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics (Electricity, Magnetism, Modern Physics)	4
T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Modern History or Political Science	4
Physical Education	1

[1] Students may use only three hours of Chemistry 103 towards degree in engineering. See note in paragraph on Common Program for Freshmen about substitution of Chem. 109 for Chem. 102 or 104.

[2] Math. 112 and 114 for those entering with two or three units of high school mathematics. This also applies to those who do not pass the mathematics placement examination.

Curriculum in Ceramic Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS

Cer. E. 101—Introduction to Ceramic Engineering[1] 3
Chem. 123—Quantitative Analysis[2] 5
Math. 143—Calculus 5
Physics 107—Electricity and Magnetism, Modern Physics 4
Physical Education 1

SECOND SEMESTER 18 HOURS

Cer. E. 102—Ceramic Processes and Equipment[1] 3
Geol. 130—Mineralogy for Engineers[1] 3
Physics 108—Heat, Sound, Light 4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Nontechnical Electives 3
Physical Education 1

[1] Not offered at Chicago Undergraduate Division.
[2] Offered first semester only.

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. See page 74.

Curriculum in Civil Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS

C.E. 105—Plane Surveying 2
C.E. 160—Engineering, Construction and Materials 3
G.E. 111—Advanced Drafting for Civil Engineers 2
Math. 143—Calculus 5
Physics 107—Electricity and Magnetism, Modern Physics 4
Physical Education 1

SUMMER
C.E. 207—Summer Surveying Camp 5

SECOND SEMESTER 16 OR 17 HOURS

C.E. 106—Surveying 3
Geol. 150—Engineering Geology 3
Physics 108—Heat, Sound, Light 4
T.A.M. 150 or 151—Analytical Mechanics (Statics) ..... 2 or 3
Econ. 102, 108 or 136 3
Physical Education 1

Curriculum in Electrical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS

Math. 143—Calculus 5
Physics 107—Electricity and Magnetism, Modern Physics 4
Speech 101—Principles of Effective Speaking 3
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Physical Education 1

SECOND SEMESTER 18 HOURS

Econ. 108—Elements of Economics 3
Math. 345—Differential Equations and Orthogonal Functions 3
E.E. 126—Electric Circuits and Fields 4
Physics 108—Heat, Sound, Light 4
Physical Education 1
Social Sciences or Humanities or Technical Elective 3

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering

for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

FIRST YEAR

Common Program for Freshmen.

(Substitution of Chem. 106 for Chem. 104 is advised).

SECOND YEAR — FIRST SEMESTER	17 HOURS
German or Nontechnical Electives[1]	4
Math. 143—Calculus	5
Physics 107—Electricity and Magnetism, Modern Physics	4
Social Sciences or Humanities[1]	3
Physical Education	1

SECOND SEMESTER	16 HOURS
German or Nontechnical Electives[1]	4
Math. 343—Advanced Calculus	3
Physics 108—Heat, Sound, Light	4
Physics 341—Electricity and Magnetism	4
Physical Education	1

[1] Students should consult departmental list of approved courses.

Curriculum in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula with their emphasis on test procedures and design, but who wish to secure a sound education in engineering principles and their application. Two sequences of basic engineering design are available with secondary fields of concentration in business, sales, technical journalism, or geological engineering. Other areas of study may be selected with the approval of the department.

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR — FIRST SEMESTER	18 HOURS
Econ. 108—Elements of Economics	3
G.E. 111—Advanced Drafting or	2
G.E. 112—Gen. Eng. Technology	5
Math. 143—Calculus	3
M.E. 182—Manufacturing Processes	3
Physics 107—General Physics (Electricity, Magnetism, and Modern Physics)	4
Physical Education	1

SECOND SEMESTER	15 HOURS
C.E. 105—Surveying	2
Math. 263—Statistics, or Math. 345—Differential Equations	3
Physics 108—General Physics (Heat, Sound, Light)	4
Speech 101—Principles of Effective Speaking	3
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

Curriculum in Industrial Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR — FIRST SEMESTER	18 HOURS
Econ. 108—Elements of Economics	3
Math. 143—Calculus	5
M.E. 183—Materials Casting, or M.E. 184—Metal Processing	3
Physics 108—Heat, Sound, Light	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

SECOND SEMESTER	18 HOURS
G.E. 112—Advanced Technology for Mechanical Engineers	2
M.E. 184—Metal Processing, or M.E. 183—Materials Casting	3
Physics 107—Electricity and Magnetism, Modern Physics	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 221—Elementary Mechanics of Deformable Bodies	3
Nontechnical Electives	2
Physical Education	1

Curriculum in Mechanical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR

FIRST SEMESTER	18 HOURS
Econ. 108—Elements of Economics	3
Math. 143—Calculus	5
M.E. 183—Materials Casting, or M.E. 184—Metal Processing	3
Physics 108—Heat, Sound, Light	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

SECOND SEMESTER	16 HOURS
G.E. 112—Advanced Technology for Mechanical Engineers	2
M.E. 184—Metal Processing, or M.E. 183—Materials Casting	3
Physics 107—Electricity and Magnetism, Modern Physics	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
Speech 101—Principles of Effective Speaking	3
Nontechnical Electives	2
Physical Education	1

Curriculum in Metallurgical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR

FIRST SEMESTER	18 HOURS
Chem. 123—Quantitative Analysis[2]	5
Math. 143—Calculus	5
Physics 107—Electricity and Magnetism, Modern Physics	4
Social Sciences or Humanities[1]	3
Physical Education	1

SECOND SEMESTER	15 HOURS
Cer. E. 221—Pyrometry[1]	2
Met. E. 201—Physical Metallurgy I[1]	3
Met. E. 203—Physical Metallurgy Laboratory I[1]	1
Physics 108—Heat, Sound, Light	4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Social Sciences or Humanities	3
Physical Education	1

[1] Not offered at Chicago Undergraduate Division.
[2] Offered first semester only.

Curriculum in Theoretical & Applied Mechanics

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR

FIRST SEMESTER	16 HOURS
Math. 143—Calculus	5
Physics 108—Heat, Sound, and Light	4
T.A.M. 151—Statics	3
Nontechnical Elective	3
Physical Education	1

SECOND SEMESTER	17 HOURS
Math. 341—Differential Equations	3
Physics 107—Electricity, Magnetism, and Modern Physics	4
T.A.M. 211—Dynamics	3
T.A.M. 221—Elementary Mechanics of Deformable Bodies	3
Nontechnical Elective	3
Physical Education	1

Combined Program in Engineering and Liberal Arts and Sciences

See the description of this program on page 80 of this catalog.

ARCHITECTURE

Offered under the College of Engineering.

Architecture is a five-year course offered with two optional curricula. The general option offers advanced work in the design and planning of larger projects and the engineering option emphasizes structural design and theory. Both options lead to the degree of bachelor of architecture. The work in the first year is identical and the student makes his choice between the general option and the engineering option at the beginning of the second year. The engineering option requires calculus and more advanced theoretical and applied mechanics.

The general option in architecture contains a well-balanced program of creative and technical training. Together with the necessary practical experience, it prepares the student for State Professional Registration. The engineering option, likewise, prepares the student for registration, but it offers advanced study in structure in place of architectural design in the last year and qualifies the student in the field of architectural engineering.

Both options include general studies in the humanities and the social and physical sciences necessary for the understanding and appreciation of better environment.

The department of architecture offers excellent facilities in lecture, drafting, and class rooms. There is a departmental library of nearly 10,000 volumes, over 10,000 slides, and innumerable magazines, pamphlets, and graphic materials.

Since the Undergraduate Division is located in Chicago, the department has numerous opportunities to present outstanding architects, professional lecturers, and inspection trips to museums, galleries, and various types of buildings under construction.

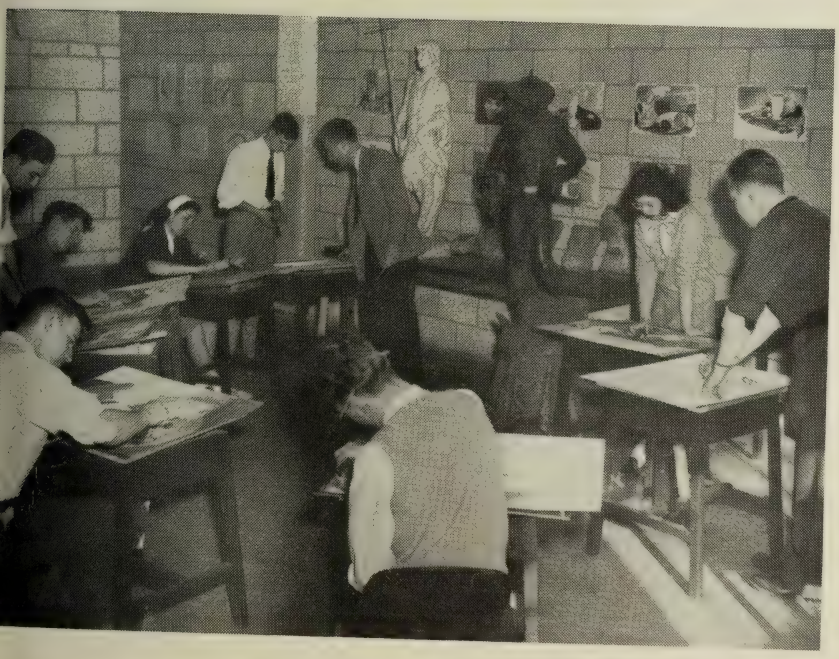
In the curriculum in architecture normal course progress in sequence is imperative. Students failing to complete any required course more than one semester later than the time designated in the curriculum, will be prohibited from progressive registration in architectural courses until the deficiency is corrected. (Applicable to students entering in September 1958.)

Regulations governing students who register in the University of Illinois in architecture:

1. Such students who register at the Chicago Undergraduate Division may not transfer to the Urbana campus until they have com-

pleted that portion of the program offered at the Chicago Undergraduate Division.

2. Such students who register at Urbana but who later transfer to the Chicago Undergraduate Division must complete that portion of the program offered at the Chicago Undergraduate Division prior to readmission at Urbana. *Note:* This does not apply to students who transfer to the Chicago Undergraduate Division for the Summer Session.



Electives

Electives provided in the two architectural curricula may consist of ny courses given in the University not required in the curricula, not paralleling the subject matter of required courses, and not open to reshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131; Botany 100,101; Geography 01, 104, 105; Geology 101; Biology 101; Speech 101, 141; English 11, 112; Accountancy 101. Courses with prerequisite of sophomore anding which are acceptable as electives include Rhetoric 152; Economics 108; English 131; Political Science 150, 151, and Sociology 100.

Curriculum in Architecture (Five Years)

FIRST YEAR — FIRST SEMESTER	15 HOURS
Art 181—Freehand Drawing	2
G.E. 107—Architectural Projections	2
Math. 112—College Algebra	3
Math 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Elective	2
Physical Education	1

SECOND SEMESTER	16 HOURS
Arch. 101—Introduction to Architecture	3
Art 182—Freehand Drawing	2
G.E. 108—Architectural Projections	2
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR — FIRST SEMESTER	16 HOURS
Arch. 131—Architectural Design	3
Arch. 141—Materials and Methods of Construction I	2
Art 183—Freehand Drawing	2
Physics 101—General Physics	5
Elective	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Arch. 113—History of Ancient Architecture	2
Arch. 132—Architectural Design	3
Arch. 142—Materials and Methods of Construction II	2
Art 184—Freehand Drawing	2
T.A.M. 171—Elementary Mechanics	3
Electives	3
Physical Education	1

THIRD YEAR — FIRST SEMESTER	16 HOURS
Arch. 133—Architectural Design	3
Arch. 143—Materials and Methods of Construction III	2
Arch. 214—History of Medieval Architecture	3
Art 281—Freehand Drawing	2
Sociol. 276—Sociology of the City	3
T.A.M. 172—Strength of Materials	3

Curriculum in Architectural Engineering (Five Years)

FIRST YEAR — FIRST SEMESTER	16 HOURS
Art 181—Freehand Drawing	2
G.E. 107—Architectural Projections	2
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Elective	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Arch. 101—Introduction to Architecture	3
Art 182—Freehand Drawing	2
G.E. 108—Architectural Projections	2
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR — FIRST SEMESTER	16 HOURS
Arch. 131—Architectural Design	3
Arch. 141—Materials and Methods of Construction I	2
Art 183—Freehand Drawing	2
Math. 133—Calculus	3
Physics 101—General Physics	5
Physical Education	1

SECOND SEMESTER	17 HOURS
Arch. 113—History of Ancient Architecture	2
Arch. 132—Architectural Design	3
Arch. 142—Materials and Methods of Construction II	2
Art 184—Freehand Drawing	2
Math. 143—Calculus	5
T.A.M. 150—Analytical Mechanics	2
Physical Education	1

THIRD YEAR — FIRST SEMESTER	16 HOURS
Arch. 133—Architectural Design	3
Arch. 143—Materials and Methods of Construction III	2
Arch. 214—History of Medieval Architecture	3
Art 281—Freehand Drawing	2
Sociol. 276—Sociology of the City	3
T.A.M. 221—Resistance of Materials	3
T.A.M. 223—Laboratory	1

ART

Offered under the College of Engineering.

The curricula in Art permit a student to attain a proficiency in art and to secure a liberal education. The first year is basic and cultural and at the beginning of the second year the student chooses his field of specialization in one of the following: Advertising Design, Industrial Design, Art Education, History of Art, Painting. These curricula all require 130 semester hours of credit in addition to physical education and military training for the degree of Bachelor of Fine Arts.

Curricula in Art

The first year is common to all curricula in art.

FIRST YEAR	FIRST SEMESTER	16 to 18 HOURS
Arch. 171—Drawing Theory		2
Art 117—Drawing		3
Art 119—Design		2
Rhet. 101—Rhetoric and Composition		3
Foreign Language or Elective[1]		3 or 4
Hygiene 104—Personal and Community Hygiene		2
Physical Education		1
Military (men)		1

	SECOND SEMESTER	14 TO 16 HOURS
Arch. 172—Drawing Theory		2
Art 118—Drawing		2
Art 120—Design		3
Rhet. 102—Rhetoric and Composition		3
Foreign Language or Elective[1]		3 or 4
Physical Education		1
Military (men)		1

[1] Electives must be chosen from the areas of humanities, social sciences, and natural sciences, and must include a minimum of three hours in each area.

COLLEGE OF LIBERAL ARTS AND SCIENCES

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years and to change his vocational objective without additional time. Such a change after the beginning of the junior year usually can not be made without loss of time. It is assumed that except for pre-medical students, upon completion of the two years' work in the Chicago Undergraduate Division, students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division, within the framework of University of Illinois requirements.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, physics, pre-medicine (complete three-year program), predentistry, pre-nursing, teacher-education, pre-law, pre-veterinary medicine, pre-journalism, combined liberal arts-engineering, and one year of occupational therapy. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in the field of concentration before beginning the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum.

Under the guidance of an adviser, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 71 and 72 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Physical Education—Four semesters.

Military Science—Four semesters, except that men transferring from the Chicago Undergraduate Division with sixty hours are exempt from this requirement.

Rhetoric—Rhetoric 101 and 102. (A student with "C" or "D" in Rhetoric 102 must pass a qualifying examination or take Rhetoric 200.)

Foreign Language—Equivalent of two college years in the same language.

U. S. History—One unit of American History in high school or History 151 and 152.

Mathematics—One unit of algebra and one unit of plane geometry in high school or Mathematics 101 and 102.

Biological Sciences[1]—Eight hours.

Physical Sciences[1]—Eight hours.

Humanities[1]—Eight hours.

Social Sciences[1]—Eight hours.

Major—Twenty approved hours in one department.

Minor(s)—Twenty approved hours in one or two departments.

Advanced hours—Thirty hours of credit in courses not open to freshmen and sophomore.

Residence—Either first ninety hours uninterrupted, or last thirty hours uninterrupted at the University of Illinois. For students at the Chicago Undergraduate Division, the junior or senior year (thirty semester hours) must be taken at Urbana.

Average—3.0 ("C") minimum average in all work and in all work at Illinois.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of "D."

[1] The eight hours must be taken in approved sequence.

REQUIRED SUBJECTS

1. Foreign Language. A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, Russian, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portuguese 104, Russian 104, Spanish 104, or a more advanced course in any of these languages. Proficiency examinations are offered

in French, German, and Spanish. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

2. Group Requirements. To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

a. Basic Knowledge. From high school: one unit of American history or History 151 and 152; one unit of algebra and one unit of plane geometry or Mathematics 101 and 102.

b. General Education. An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.

ELECTIVES

1. Liberal Arts and Sciences. Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

2. Other Colleges. Electives totaling as much as but not more than thirty-two hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list:

Accountancy. A total of 6 hours (including not more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics. A total of 6 hours.

Architecture. A total of 15 hours.

Art. A total of 15 hours, unless the student is majoring in history of art.

Aviation. A total of 3 hours.

Business Law. A total of 6 hours.

Economics. All courses.

Education. A total of 20 hours.

Engineering. A total of 10 hours for LAS students. However, a student in the combined LAS–Engineering Curriculum may count all engineering courses toward the two degrees.

Finance. All courses.

Food Technology. A total of 6 hours.

Forestry. A total of 3 hours.

Home Economics. All courses.

Horticulture. A total of 6 hours.

Hygiene. A total of 2 hours.

Journalism. A total of 10 hours.

Landscape Architecture. A total of 7 hours.

Law. A student of senior standing with an average of 3.5 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the University of Illinois College of Law. A student of senior standing with an average of 3.5 who has completed his first three years (not less than 88 semester hours excluding basic military and physical education) in residence at the University of Illinois (a student at the Chicago Undergraduate Division must complete his junior year with at least 30 semester hours at Urbana) and who transfers to an accredited college of law other than that of the University of Illinois may count 32 hours of law toward the A.B. degree. The applicant for the degree will petition the dean of the College of Liberal Arts and Sciences, who may approve the granting of the bachelor's degree if all the college and unisity requirements have been met.

Library Science. A total of 20 hours.

Management and Marketing. A total of 6 hours. Typing, secretarial training, and shorthand may not be counted for credit.

Military. A total of 8 hours in advanced courses.

Music. A total of 15 hours approved by the Director of the School, unless the student is majoring in music.

Physics. All courses.

Chemistry and Chemical Engineering

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 123, and who do not have two units of high school credit in French or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing in the curriculum.

Curriculum in Chemistry

FIRST YEAR — FIRST SEMESTER	17 HOURS
Chem. 107—General Chemistry[1]	5
German or French	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 108—General Chemistry and Qualitative Analysis	5
German or French	4
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	

SECOND YEAR — FIRST SEMESTER	16 HOURS
Chem. 124—Quantitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	5
Physical Education	
Electives[2]	3

SECOND SEMESTER	17 or 18 HOURS
Chem. 234—Organic Chemistry	5
Math. 143—Calculus	5
Physics 107—Electricity, Magnetism, Modern Physics	5
Physical Education	
Electives [2]	2 or 3

[1] All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2] Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

Curriculum in Chemical Engineering (Four Years)

FIRST YEAR — FIRST SEMESTER	16 HOURS
Chem. 107—General Chemistry[1]	5
G. E. 101—Elements of Drawing	3
Math. 123—Analytic Geometry[3]	5
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND YEAR — FIRST SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5
German or French [4]	4
Math. 143—Calculus	5
Physics 107—Electricity, Magnetism, Modern Physics	4
Physical Education	

SECOND SEMESTER	15 to 18 HOURS
Chem. 108—General Chemistry and Qualitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	4
Rhet. 102—Rhetoric and Composition	3
Electives[2]	0 to 3
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 342—Elementary Physical Chemistry	3
German or French[4]	4
Physics 108—Heat, Sound, Light	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	
Electives[5]	4

Optional Curriculum in Chemical Engineering (Five Years)

FIRST YEAR — FIRST SEMESTER	15 to 17 HOURS
Chem. 101 or 102—General Chemistry[6]	5 or 3
German or French	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND YEAR — FIRST SEMESTER	17 HOURS
Chem. 110—Qualitative Analysis	5
German or French	4
Math. 133—Calculus	3
Physics 106—Mechanics	5
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 106—Inorganic Chemistry	5
German or French	4
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5
German or French	4
Physics 107—Electricity, Magnetism, Modern Physics	4
Math. 143—Calculus	5
Physical Education	

---

[1] All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2] Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

[3] Students without the required entrance credits in mathematics take Mathematics 112 (or 103), 114, 123, 133, and 143.

[4] Two years of German and/or French are required for the B.S. degree. Two units of high school credit in either of these languages is equivalent to one year of college credit. Students entering without German or French in high school may substitute the second year of the language requirement for the eight hours of electives referred to in footnote 5.

[5] Eight hours of electives must be chosen from the Divisions of Humanities or Social Sciences with the approval of the adviser. The courses are intended to broaden the engineer and provide an interest and liberal education in history, language, literature, philosophy, political science, or public speaking.

[6] Students who qualify for Chemistry 107 should take the Chemistry 107, 108, 124, 342 sequence rather than Chemistry 101, 106, 110, 124 and thus have five additional hours of advanced electives.

Curriculum in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining the B.S. degree. It specifies the courses essential to a strong foundation in physics and permits concentration in the first two years on basic courses which are prerequisite to advanced courses in physics and mathematics.

It is planned for a student entering with four years of high school mathematics, including trigonometry (see, however, footnote 1 following curriculum), a year of chemistry and no French or German. A student who can satisfy the college language requirement on entering has the distinct advantage of adding 16 hours of electives to his course of study. A student who has a year of high school biology will also have more freedom in choice of electives (see footnote 4 following curriculum).

To enter the physics curriculum, an entering freshman must rank in the upper half of his high school class. To be permitted to register in advanced physics or mathematics courses in this curriculum students must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military science and physical education, and a combined grade average of at least 3.5 in all courses completed in physics and mathematics. Transfer students must have a corresponding record in the institution from which they transfer.

FIRST YEAR	FIRST SEMESTER	16 HOURS
Math. 123—Analytic Geometry[1]		5
Chem. 103—General Chemistry[2]		4
German or French[3]		4
Rhet. 101—Rhetoric and Composition		3
Physical Education		

SECOND SEMESTER	16 OR 17 HOURS
Math. 133—Calculus[1]	3
Chem. 104—Chemistry of the Metallic Elements[2]	4
German or French[3]	4
Rhet. 102—Rhetoric and Composition	3
Physical Education	
Electives	2 or 3

SECOND YEAR	FIRST SEMESTER	17 HOURS
Math. 143—Calculus[1]		5
Physics 106—General Physics		4
German or French[3]		4
Elective[4]		4
Physical Education		

SECOND SEMESTER	15 HOURS
Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

[1] The prerequisite to entering the stated sequence in mathematics is three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the mathematics placement examination. Students having college credit for algebra and trigonometry are not required to take the examination. A student who does not meet the above prerequisite may meet the requirements in basic mathematics with the sequence Math. 112, 114, 123, 133, 143, but he will receive only 13 hours credit toward the degree.

[2] The chemistry requirement may be satisfied by a year of general chemistry selected from courses Chem. 101 through 108, or by the one-semester course, Chem. 109. A maximum of eight hours in general chemistry will be counted toward the degree, except that ten hours will be allowed for Chem. 107 and 108.

[3] The language requirement is a reading knowledge of German or French. A student planning to enter graduate study should attain a reading knowledge of both German and French.

[4] The elective subjects must include at least 24 hours of course work in humanities, social sciences, and biological sciences. The courses must satisfy the general education requirements of the college, except that students offering one unit or more of biology for admission may substitute additional courses in humanities and social sciences for biological sciences. Students will be advised to include six to eight hours of physics and three to six hours of mathematics among the remaining electives.

Pre-medical Curriculum

Any freshman whose scholastic rank is in the upper half of his high school graduating class, provided he has credit in elementary algebra and plane geometry, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum. Pre-medical students must maintain a 3.5 average to remain in the curriculum. A student transferring to this college with advanced standing must meet this standard in terms of the University's grading system in order to be admitted to the pre-medical curriculum.

Other factors being equal, students at the University of Illinois who have completed the pre-medical curriculum with an average of 4.3 or better, will be given preferential consideration by the Committee on Admissions of the College of Medicine, provided that at least the second and third years have been done within the University.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	SEMESTER HOURS
Non-science Courses (32 semester hours required)	
English	6
Foreign Language	6
Social Science and Humanities (at least three hours from each area)	16
Electives	4
Laboratory Sciences (32 semester hours required)	
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and embryology)	10
Chemistry (including in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	14
Physics (including laboratory work in mechanics, heat, sound, light, and electricity)	8
Free Electives	24
Total	88

Curricula in Nursing

The University offers two degree programs leading to a Bachelor of Science in Nursing. One is for students direct from high school, the second is a continuation program for registered nurses who meet a specific set of requirements. Each program is made up of two phases—a pre-professional year in the College of Liberal Arts and Sciences, and the professional phase administered by the School of Nursing.

Admission to the pre-professional year in both programs is restricted to students from the upper half of the high school class who are eligible to enter the College of Liberal Arts and Sciences. Transfer students must have a 3.0 scholastic average.

Admission to the professional phase is on recommendation of the Admissions Committee of the School of Nursing after completion of the following pre-professional year:

Physical Education	2
Rhetoric 101, 102	6
Chemistry 102 (or 101), 132	6-8
Biology 101	4*
Humanities	6-8
Social Sciences	6-8
Electives	
Total	32

* Not required of registered nurses who are candidates for the continuation program.

Specific questions on both programs should be addressed to the Dean of the School of Nursing.

Pre-dental Curriculum

Students applying for admission to the pre-dental curriculum must have ranked in the upper half of their high school graduating classes. They must maintain at all times in the curriculum a minimum average of 3.5. Since the function of the pre-dental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours include history, economics, sociology, philosophy, and at least one modern language.

The specific requirements for admission to the College of Dentistry are as follows:

	SEMESTER HOURS
Chemistry (including three hours of quantitative analysis and four hours of organic chemistry—Chemistry 101 or 102, 105, 122, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology[1])	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives (including history, economics, sociology, philosophy, and at least one modern language; excluding military, hygiene, and physical education)	30
Total	60

[1] The general zoology requirement may be met by Biol. 101 and 131 or Biol. 101 with a grade of "B."

Pre-dental students who wish to be candidates for the degree of Bachelor of Science in Dentistry on the completion of the second year in the College of Dentistry should consult the College of Dentistry Catalog.

Pre-veterinary Curriculum

The two-year pre-veterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the pre-veterinary curriculum must rank in the upper half of their high school graduating classes. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	SEMESTER HOURS
Chemistry (including organic and quantitative analysis—Chemistry 101 or 102, 105, 122, and 133)	16
Biological Sciences (including botany and general zoology)	8
Physics (including laboratory—Physics 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	9
Free electives	7
Total	60

The pre-veterinary curriculum is extremely rigid and failure to register in the prescribed courses in the proper sequence may result in an additional semester of study.

Pre-law Curriculum

The pre-legal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Service at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours. The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

Occupational Therapy

The University offers a bacculaureate degree program in occupational therapy, open both to men and women and requiring six semesters of work in the College of Liberal Arts and Sciences and five quarters in the College of Medicine. The first year may be taken at the Chicago Undergraduate Division.

Admission to the curriculum is restricted to students from the upper half of the high school graduating class, who are in good health as determined by a physical examination, and who are approved by the Director of the curriculum. A 3.5 average is required for admission to the professional phase of the curriculum.

The work of the first year is as follows:

	SEMESTER HOURS
Rhetoric 101, 102	6
Biology 101, 141	8
Art 181, 182	4
Speech 101	3
Hygiene 104	2
Electives (foreign language, social science, humanities)	8-10
Physical Education	
Total	31-33

Combined program in Engineering and Liberal Arts and Sciences

The Colleges of Engineering and Liberal Arts and Sciences offer a combined program of five years leading to a baccalaureate degree from each college. This curriculum requires 166 hours for graduation, exclusive of physical education and military science. It is possible to combine any of certain Engineering curricula—aeronautical, agricultural, civil, electrical, engineering mechanics, physics, industrial, mechanical—with any one of certain majors in Liberal Arts and Sciences—anthropology, astronomy, classics, English, French, history, Latin, mathematics, philosophy, physics, political science, psychology, Russian, sociology, Spanish, speech. Other combinations will require more than ten semesters.

The first year is the program common to freshman in Engineering and may be taken in either college. The second and third years are

taken in Liberal Arts and Sciences, and the last two years are taken in Engineering. All graduation requirements of both colleges must be met.

Students entering this curriculum must meet the admission requirements of both colleges. A student dropping out of the program will be subject to the existing graduation requirements of the college of his choice. A student in the curriculum is governed by the probation and drop rules of the college in which he is registered. A student who completes the foreign language requirement in Liberal Arts and Sciences in less than four semesters must replace the hours thus released by work in social sciences or humanities.

Graduation will be from both colleges simultaneously on completion of the entire program.

Transfer students who have more than 75 hours are ineligible for this program. Applications from transfer students for the combined program must be made at least six weeks in advance of the opening of the term.

Home Economics Curriculum

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Teacher Education Curricula

Of the curricula in teacher education which have been approved by the College of Liberal Arts and Sciences, preliminary work in thirteen curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

While these curricula vary considerably from one another, the common core of the first two years is as follows:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR SEMESTER HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech 101	3	
Foreign Language (until a 104 course is completed)	8	8
Science	6-8	
English or Social Studies as required		6-8
Specific requirements, Education 101, History 152, Political Science 150, Psychology 100		12
Work in major teaching field and electives	3-7	4-6
Total	30-32	32-34

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this College.

The work of the first two years in this curriculum has the following pattern:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR SEMESTER HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech	2-3	
Language arts	6-8	
Science, biological and physical	8	8
Social Studies	8	
Specific requirements, Education 101, Geography 104, History 152, Political Science 150, Psychology 100		15
Electives		7-9
Total	32-34	32-34

Admission to the curricula preparatory to teaching deaf and hard-of-hearing children and mentally handicapped children requires the meeting of qualitative and physical requirements and a personal interview. The determination of courses will be made with a teacher education advisor.

Pre-journalism Curriculum

Students planning to enter the College of Journalism and Communications register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ablity to use a typewriter should be acquired before entering this school.

For admission to the College of Journalism and Communications as a candidate for a degree, a student must have completed fifty-six semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military training, with an average grade of 3.5. An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, twelve hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The College of Journalism and Communications offers the following curricula: editorial, advertising, publication management, and radio-television.

COLLEGE OF PHYSICAL EDUCATION

All students entering the University as freshmen are required to obtain four hours of credit in physical education. Each student is given a health examination and a placement test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to prescribed activities. Students with low scores in the placement test are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for one and one-half hours. All general courses in physical education carry one hour of credit.

Women students entering the University as freshmen are required to obtain credit for four semester hours of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Women are offered instruction in elementary and intermediate rhythms, ballroom dance, speedball, modified activities, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor

fitness, archery, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's physical education classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extra-curricular activities in sports and the dance.

Men students entering the University with less than sixty semester hours credit are required to secure four semesters of credit in physical education, including the amount transferred. In addition to intercollegiate and intramural athletics, men students in the physical education classes are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, personal defense activities, and a basic physical fitness program.

Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempt from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce and Business Administration.

PROFESSIONAL CURRICULA

In addition to the service program, the College of Physical Education offers the first two years of a four-year program leading to the degree of Bachelor of Science in Physical Education, for both men and women. Men desiring to major in Recreation or Health Education, and women desiring to major in Dance, may take at least one year of work at this Division. Complete information concerning the professional curricula is available at the office of the Associate Dean of the College of Physical Education (for men) and from the Head of the Department of Physical Education for Women.

Curriculum in Physical Education for Men

FIRST SEMESTER		SECOND SEMESTER	
PEM 150—Professional Orientation	2	PEM 151—Basketball	2
PEM 153—Fitness Programs	2	PEM 152—Football	2
PEM 154—Swimming	2	Biol. 102—Fundamental of Biology	4
Biol. 101—Fundamental of Biology	4	Speech 101—Prin. of Effect. Sp.	3
Rhet. 101—Rhetoric & Composition	3	Hygiene 110—Public Health	2
Hygiene 104—Per. & Comm. Hygiene	2	Rhet. 102—Rhetoric & Composition	3

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
PEM 155—Wrestling & Gymnastics	2	Rec. 170—Outdoor Recreation Spts.	
PEM 156—Track & Field & Baseball	2	Rec. 171—Indoor Recreation Spts.	
Rec. 174—Camp Counseling	3	Rec. 176—Principles of Recreation	
Psych. 100—Introduction to Psych.	4	History 152—American History	
Pol. Sci. 150—American Government	3	Education 201—Found. of Am. Ed.	
Humanities Elective	3	Rhet. 151—Bus. Letter Writing	
	2	Electives	

Curriculum in Physical Education for Women

FIRST YEAR

FIRST SEMESTER	HOURS
P.E.W. 150—Prof. Orientation	2
P.E.W. 151—Body Mechanics, Gymnastics, Hockey	2
P.E.W. 110—Swimming	1
Hygiene 104—Personal & Community Hygiene	2
Biology 101—Fund. of Biology	4
Rhetoric 101—Freshman Rhet. & Composition	3
Humanities Elective*	3
	17

SECOND SEMESTER	HOURS
P.E.W. 152—Basketball, and Softball	1
Dance 160—Beg. Cont. Dance	2
Biology 102—Fund. of Biology	4
Speech 101—Prin. of Effective Speaking	3
Rhetoric 102—Freshman Rhet. & Composition	3
Humanities Elective*	3
	16

SECOND YEAR

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
P.E.W. 153—Soccer, Speedball, Volleyball	1	P.E.W. 154—Tumbling, Apparatus, Tennis	2
Psych. 100—Intro. to Psychology	4	Dance 236—Folk Dance	1
Pol. Sci. 150—American Government	3	Hist. 152—Hist. of U. S. 1865-1956	3
Soc. Sci. Elective**	4	Ed. 109—Ed. Psychology	3
Elective	4	Ed. 201—Foundations of American Ed.	2
	16	Elective	5
			16

* This requirement will be satisfied by one of the following sequences:
Humanities 101 and 102
English 101, 102, 103 (any two)
Foreign Language 101, 102, 103 and 104

** This requirement is satisfied by one of the following:
Soc. Sci. 111, 112, 116
Anthropology 102
Sociology 100

U. S. ARMY RESERVE OFFICERS' TRAINING CORPS

Authorization

The Reserve Officers' Training Corps (R.O.T.C.) is organized under authority of section 40 through 47c of the National Defense Act of 1916, as amended, and was activated at the University of Illinois, Chicago Undergraduate Division, in September 1950.

Educational Aim

The fundamental educational aim of the R.O.T.C. is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and, to so prepare him, that in time of national emergency he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspects of the military training program gives the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should instill in the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The R.O.T.C. course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the R.O.T.C. are that the

student be regularly enrolled in the University, be a citizen of the United States, be within specified age limits, be physically qualified, and be approved by the Professor of Military Science and Tactics.

Note: Students who voluntarily enroll in R.O.T.C. thereby become obligated to fulfill the University degree requirement in Military Science.

Program of Instruction

College level R.O.T.C. instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, comprising the last two years of the program. Only the first three years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the basic course. Students in the basic course will devote three hours a week to military instruction which will consist of two hours of classroom instruction and one hour of drill. Accreditation for the basic course is one hour each semester. A student entering the University of Illinois after successfully completing military training at a high school or preparatory school which has an accredited Junior Division R.O.T.C. program will be entitled, upon enrollment, to such placement as may be determined by the Professor of Military Science and Tactics. In no case will this placement exceed the first year of the basic course. Any member of the U. S. Army Reserve who has completed a six-month tour of active duty for training is eligible to enroll in the basic course of R.O.T.C Constructive credit not to exceed the first year of the basic course may be given to individuals in this category. These individuals also may substitute completion of a satisfactory year of R.O.T.C. training for a required satisfactory year of training in the Ready Reserve.

Advanced Course

The advanced course of the R.O.T.C. leads to a Reserve or Regular commission in the U. S. Army. The first year of advanced course training in Infantry is offered to students who have successfully completed the two-year basic course or to veterans of the Army, Air Force, Navy and Marine Corps who have completed one year of active service in the Armed Forces and have been honorably discharged. Any student enrolling in the advanced course must be prepared to pursue the course to completion, and must be able to qualify for appointment as a second lieutenant prior to reaching twenty-eight years of age. The objective of the advanced course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular Army units.

The advanced course consists of five hours of instruction each week four hours of which is classroom instruction and one hour of drill. Accreditation for the advanced course is three credit hours each semester. All candidates for a Reserve commission must have reached an age of not less than twenty-one years, completed four years of education on college or university level, and successfully completed the advanced course which includes a summer encampment. The encampment is of approximately six weeks duration and is usually held at the end of the first year of the advanced course. Students completing all requirements for a Reserve commission, but who have not reached the age of twenty-one will be given a certificate of capacity and a temporary commission and will receive the Reserve Officer Commission shortly after the

twenty-first birthday. Those with distinguished records in R.O.T.C. are selected for consideration for Regular commission in the Army.

All members of the advanced course will receive the following: monetary allowance in lieu of subsistence, officer-type uniform, the pay of the first enlisted grade while at the advanced summer encampment, and all necessary texts and materials on a loan basis.

Deferment from Selective Service

Deferment from Selective Service is granted for completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and civilian faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the R.O.T.C., including the basic course, receive an Army officer-type uniform and textbooks at government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of $10 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

COURSES OF INSTRUCTION

All courses are offered each semester, unless otherwise indicated (I, fall semester only; II, spring semester only). The number of hours of credit for each course is indicated in the text of the course description, as are prerequisites and restrictions.

ACCOUNTANCY

Accy. 101. Principles of Accounting. Beginners' course. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

Accy. 105. Accounting Procedure. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting, business forms and records; payroll accounting; single entry; financial statement analysis. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

Accy. 106. Elementary Cost Accounting. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. Credit 3 hours. Prerequisite: One year of accountancy; sophomore standing.

Accy. 108. Intermediate Accounting. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. Credit 3 hours. Prerequisite: One year of accountancy; sophomore standing.

ARCHITECTURE

Arch. 101. Introduction to Architecture. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Prerequisite: Credit or registration in General Engineering 107. Credit 3 hours.

Arch. 113. History of Ancient Architecture. A description and analysis of the development of the architecture of the ancient East, Greece and Rome, related to the environmental and cultural setting. Credit 2 hours. Prerequisite: Architecture 131 or sophomore standing.

Arch. 131. Architectural Design. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. Credit 3 hours. Prerequisite: Sophomore standing, Arch. 101, credit or registration in G.E. 108, and registration in Arch. 141.

Arch. 132. Architectural Design. Continued study of the fundamentals of architectural design. Credit 3 hours. Prerequisite: Architecture 131.

Arch. 133. Architectural Design. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. Credit 3 hours. Prerequisite: Architecture 132, credit or registration in T.A.M. 150 or 171, and registration in Arch. 143.

Arch. 141. Materials and Methods of Construction I. Wood frame construction as used in houses; manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Credit 2 hours. Prerequisite: Registration in Architecture 131.

Arch. 142. Materials and Methods of Construction II. Non-fire resistance construction; manufacture and performance characteristics of materials: support systems; typical details; finishing materials. Lectures and drawings. Credit 2 hours. Prerequisite: Architecture 141.

Arch. 143. Materials and Methods of Construction III. Semi-fireproof construction, manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Credit 2 hours. Prerequisite: Architecture 142 and registration in Arch. 133.

Arch. 214. History of Medieval Architecture. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. Credit 3 hours. Prerequisite: Architecture 113 or consent of instructor.

ART

Art 111. Survey of Art History. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. Credit 3 hours. I.

Art 112. Introduction to Renaissance and Modern Art. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. Credit 3 hours. II.

Art 115. Art Appreciation. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students. Credit 3 hours.

Art 117. Drawing I. Theory and practice in the elements of drawing. Credit 3 hours. I.

Art 118. Drawing II. Continuation of Art 117. Credit 2 hours. Prerequisite: Art 117. II.

Art 119. Design. Theory and practice in the elements of design. Credit 2 hours. I.

Art 120. Design. Continuation of Art 119. Credit 3 hours. Prerequisite: Art 119. II.

Art 181. Freehand Drawing. Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Credit 2 hours.

Art 182. Freehand Drawing. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Credit 2 hours. Prerequisite: Art 181.

Art 183. Freehand Drawing. Charcoal drawing from the cast; water color. Primarily for students in architecture. Credit 2 hours. Prerequisite: Art 182.

Art 184. Freehand Drawing. Charcoal drawing from the cast; water color. Primarily for students in architecture. Credit 2 hours. Prerequisite: Art 183.

Art 281. Freehand Drawing. Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. Prerequisite: Art 184. Credit 2 hours.

BIOLOGICAL SCIENCES

Biology 101. Fundamentals of Biology. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for both Biol. 101 and D.G.S. 131.

Biology 102. Fundamentals of Biology, Continued. Application of biological principles to the living world. Lectures and laboratory. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biol. 101. Credit will not be given for both Biol. 102 and D.G.S. 132.

Biology 111. General Botany. The basic principles of plant structure, growth, physiology, reproduction, evolution and distribution, with special emphasis upon the role of the plant kingdom in the cycles of nature and human life. Lectures and laboratory. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement or consent of the instructor.

Biology 115. Introductory Systematic Botany (Plant Taxonomy). Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures and laboratory. Credit 4 hours. Prerequisite: Biology 102 or 111.

Biology 116. Economic Botany. Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Applications to forest, drug, food, textile, beverage and other industries. Lectures and discussion. Credit 3 hours. Prerequisite: Biology 102 or 111. II

Biology 121. Microbiology. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures and laboratory. Credit 4 hours. Prerequisite: Biology 102 or consent of instructor.

Biology 126. Advanced General Bacteriology. General technic, special apparatus and methods. Lectures and laboratory. Credit 4 hours. Prerequisite: Biology 121, credit or registration in Chemistry 105. II.

Biology 131. General Zoology. A survey of the animal kingdom, the phylogenetic relationships of animals, and classification. Emphasis is placed upon economically important and parasitic forms. Lectures and laboratory. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 111.

Biology 132. Comparative Vertebrate Anatomy. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. Credit 5 hours. Prerequisite: Biology 102 or 131, or Biology 101 with a grade of "B" or higher.

Biology 136. Bird Study. Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation. Credit 2 hours. II.

Biology 141. Vertebrate Physiology. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 101.

Biology 142. Physiology of the Nervous System. This course is designed to furnish an understanding of the physiological activities by which the nervous system carries out its function. Recommended as background for students of psychology, education, or biological sciences. Lectures and laboratory. Credit 4 hours. Prerequisite: Biology 141.

Biology 333. Vertebrate Embryology. The development of the vertebrate body and its organs. Lectures and laboratory. Credit 5 hours. Prerequisite: Biology 132, junior standing.

BUSINESS LAW

Business Law 100. Basic Principles of Business Law. Basic principles of business law, covering the subjects of contracts, sales, negotiable instruments and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. Credit 3 hours. Prerequisite: Accountancy 105; Economics 102; 45 credit hours.

CHEMISTRY

(All courses, except 247, 342, 343, consist of lecture, laboratory and quiz.)

Chem. 101. General Chemistry. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 102. General Chemistry. For students who have had one year of high school chemistry, and whose preparation is adequate as indicated by placement examination. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: One unit of entrance credit in chemistry or equivalent.

Chem. 103. General Chemistry. For engineering students who have had no chemistry or whose preparation is inadequate for Chemistry 102. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in Mathematics, or credit in Mathematics 103 or 112.

Chem. 104. Chemistry of the Metallic Elements. Limited to students in engineering curricula. Credit 4 hours. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105, 106, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 105. Inorganic Chemistry and Qualitative Analysis. For students who are not eligible for Chemistry 104 or 106. Credit 5 hours. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

Chem. 106. Inorganic Chemistry. Metallic elements. For students in curricula in chemistry, chemical engineering and chemistry majors who are not premedical students. Credit 5 hours. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104, 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

Chem. 107. General Chemistry. For students in curricula in chemistry or chemical engineering. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination. I.

Chem. 108. General Chemistry and Qualitative Analysis. For students in curricula in chemistry or chemical engineering. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Credit is not granted to students who have received credit in Chemistry 104, 105, 106, or 109. Prerequisite: Chemistry 107. II.

Chem. 109. General and Inorganic Chemistry. A course in general chemistry and the chemistry of the elements and inorganic compounds, completing in one semester the work usually taken in two. Open only to those who have had high school chemistry and who graduated from high school in the highest quarter of the class. Students who plan to specialize in chemistry or chemical engineering are advised to register in Chemistry 107 rather than Chemistry 109. Premedical students requiring more than five hours of general inorganic chemistry are advised to take a two-semester sequence instead of Chemistry 109. Not open to students who have college credit in chemistry. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: High school chemistry; graduation from high school in the highest quarter of the class.

Chem. 110. Qualitative Analysis. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students who major in chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. Credit 5 hours. Prerequisite: Chemistry 106 or equivalent.

Chem. 122. Elementary Quantitative Analysis. Gravimetric and volumetric analysis, stoichiometrical relations, practical application. Credit 5 hours. Prerequisite: Chemistry 105 or equivalent.

Chem. 123. Quantitative Analysis for Engineers. A course in quantitative analysis designed for the needs of engineers, especially ceramic and metallurgical. Credit 5 hours. Prerequisite: Chemistry 104, 105 or 109. II.

Chem. 124. Quantitative Analysis. For all students in the chemistry curriculum and chemical engineering. Credit 5 hours. Prerequisite: Chemistry 108, 110 or equivalent.

Chem. 132. Elementary Organic Chemistry. This course does not satisfy the organic chemistry prerequisite for Chemistry 350, 354, or 355. Beginning course in organic chemistry especially for students in prenursing curriculum. Credit 3 hours. Prerequisite: Chemistry 101, 102, 109 or equivalent. II.

Chem. 133. Elementary Organic Chemistry. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Lectures, recitations, and laboratory. Credit 5 hours. Prerequisite: Chemistry 105 or equivalent.

Chem. 234. Organic Chemistry. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. Credit 5 hours. Prerequisite: Chemistry 124. II.

Chem. 247. Elementary Physical Chemistry. For premedical students and others not in chemistry and engineering curricula. Lectures and laboratory. Credit 4 hours. Prerequisite: Chemistry 122 and 133; Physics 102, or equivalent. II.

Chem. 342. Physical Chemistry. Introduction to the study of chemical principles. Credit 3 hours. Prerequisite: Chemistry 124; Physics 106, 107 and 108, or two semesters of general physics with concurrent registration in the third semester; credit or registration in Mathematics 143; or equivalents. I.

Chem. 343. Physical Chemistry Laboratory. Quantitative experimental study of chemical principles. Credit 1 hour. Prerequisite: Credit or registration in Chemistry 342. I.

CIVIL ENGINEERING

C. E. 105. Surveying. Use of transit, level and tape; fundamental surveying procedures and office computations; land surveying. Credit 2 hours. Prerequisite: General Engineering 101 and Mathematics 114.

C. E. 106. Surveying. Topographic surveying; field astronomy; route surveying; stream gaging; introduction to photogrammetry. Credit 3 hours. Prerequisite: Civil Engineering 105; credit or registration in General Engineering 111.

C. E. 115. General Surveying. Use and care of surveying instruments; methods of making engineering surveys; computations of areas and volumes; contour problems; transit stadia mapping methods. Credit 3 hours. Prerequisite: General Engineering 101 or 104; Mathematics 114.

C. E. 160. Engineering Construction and Materials. Materials, types of construction, and details of buildings. Credit 3 hours. Prerequisite: Sophomore standing.

C. E. 207. Surveying Camp. Topographic surveying and mapping; highway location surveys; land surveying; hydrographic surveying; stream gaging; field astronomy; precise traverse and leveling. Given in summer surveying camp at Camp Rabideau in northern Minnesota. Credit 5 hours. Prerequisite: Civil Engineering 106.

C. E. 235. Plain Concrete. Production, properties, specification requirements and uses of Portland cement, aggregates, mixing water, and ad-mixtures; proportioning, field practice in the production of concrete; laboratory practice including tests on materials and concrete of various proportions; calculations and graphs based on values from concrete proporting projects. Credit 2 hours. Prerequisite: Sophomore standing in engineering or architecture.

ECONOMICS

Econ. 100. Introduction to Business. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only. Credit 3 hours.

Econ. 102. Principles of Economics I. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. Credit 3 hours. Prerequisite: One year of college work.

Econ. 103. Principles of Economics II. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. Credit 3 hours. Prerequisite: Economics 102.

Econ. 108. Elements of Economics. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. Credit 3 hours. Prerequisite: One year of college work. Not open to those who have had Economics 102 or 103.

Econ. 136. American Economic History. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. Credit 3 hours. Open to freshmen and sophomores only.

Econ. 138. European Economic History. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. Credit 3 hours. Open to freshmen and sophomores only.

Econ. 170. Elements of Statistics. Methods of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credi for Psychology 135, Mathematics 161, or Economics 171. Credit 3 hours. Pre requisite: Economics 102 or 108; sophomore standing.

EDUCATION

Ed. 101. Nature of the Teaching Profession. An orientation course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher. Credit 2 hours.

Ed. 109. Educational Psychology. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. Credit 3 hours. Prerequisite: Psychology 100. II.

Ed. 201. Foundations of American Education. A study of contemporary American public education in the setting of current American culture; confusions and issues with respect to the school program, its purposes, its content, its methods, and its organization are related to confusions and issues with respect to social, economic, and political purposes and organizations, both domestic and international. An attempt is made through the study of these relationships to clarify the contemporary social functions of the American school and teaching profession. Credit 2 hours. Prerequisite: Psychology 100; Education 101. Open only to fourth semester students.

ELECTRICAL ENGINEERING

E. E. 126. Electric Circuits and Fields. Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. Credit 4 hours. Prerequisite: Physics 107; Mathematics 143; credit or registration in Mathematics 345.

ENGLISH

English 101. Introduction to Poetry. Understanding of poetry through the reading and discussion of representative poems. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. This course, plus English 102 and 103, satisfies the humanities requirement in general education.

English 102. Introduction to Drama. Understanding of drama through the reading and discussion of representative plays. The reading list includes selections from Greek, Elizabethan, modern English, continental, and American drama. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

English 103. Introduction to Fiction. Understanding of fiction through the reading and discussion of representative short stories and novels. The reading list includes Jane Austen's "Pride and Prejudice," Balzac's "Pere Goriot," Arnold Bennett's "Old Wives' Tale," Dostoevski's "Crime and Punishment," Robert Penn Warren's "All the King's Men" and the anthology "Reading Modern Short Stories." Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

English 113. American Literature. Classic American authors before the Civil War: an introduction to Franklin, Poe, Emerson, Hawthorne, Melville, Whitman, and others. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 114. American Literature. Classic American authors after the Civil War to the present: an introduction to Mark Twain, James, Dreiser, Hemingway, O'Neill, Frost, and others. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 121. Chief English Writers Before 1800. "Canterbury Tales," "Utopia," two plays by Shakespeare, "Paradise Lost," "Gulliver's Travels," "Tom Jones," "Rasselas." This course, with English 122, is the normal prerequisite to an English major. This course, plus English 122 and 123, satisfies the humanities requirement in general education. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 122. Chief English Writers of the Nineteenth Century. Wordsworth, Byron, Carlyle's "Past and Present," Arnold's prose and poetry, FitzGerald's "The Rubaiyat of Omar Khayyam," readings from T. H. Huxley, Browning's poems, and one novel. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 123. Chief Modern English Writers. Conrad, Eliot, Joyce, Lawrence, Shaw, Yeats, and others. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 131. Introduction to Shakespeare. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

FRENCH

French 101. Elementary Course. Grammar, pronunciation, reading of modern authors, composition, and conversation. For students who have no credit in French. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101, without French 102.

French 102. Elementary Course. Continuation of French 101. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: French 101 or one year of high school French.

French 103. Modern French. Rapid reading of modern authors, syntax, and composition; some conversational practice. Credit 4 hours. Prerequisite: French 102 or two years of high school French.

French 104. Modern French. Continuation of French 103. Credit 4 hours. Prerequisite: French 103 or three years of high school French.

French 201. Introduction to French Literature. Credit 3 hours. Prerequisite: French 104 or four years of high school French. I.

French 202. Introduction to French Literature. Continuation of French 201. Credit 3 hours. Prerequisite: French 104 or four years of high school French. II.

GENERAL ENGINEERING

G. E. 101. Elements of Drawing. Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. Credit 3 hours. Prerequisite: Plane geometry.

G. E. 102. Engineering Geometry. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawings. Credit 3 hours. Prerequisite: General Engineering 101.

G. E. 107. Architectural Projections. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. Credit 2 hours. Prerequisite: Plane geometry.

G. E. 108. Architectural Projections. Shades and shadows; oblique, isometric, and perspective drawings; developments. Credit 2 hours. Prerequisite: General Engineering 107.

G. E. 111. Advanced Drafting for Civil Engineers. Credit 2 hours. Prerequisite: General Engineering 102, or consent of instructor. I.

G. E. 112. General Engineering Technology. For mechanical engineers. Credit 2 hours. Prerequisite: General Engineering 102, or consent of instructor. II.

G. E. 210. Industrial Production Illustration. Mechanical and freehand drawings in axonometric, oblique, and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. Credit 3 hours. Prerequisite: General Engineering 102, or 107 and 108.

G. E. 212. Graphical Calculations. Use of various types of slide rules with special attention to the log-log scales; rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper, construction and use of nomographs or aligning charts. For students in engineering; accepted as an approved elective in all engineering curricula. Credit 1 hour. Prerequisite: General Engineering 101 or equivalent; Mathematics 123.

GEOGRAPHY

Geog. 101. Elements of Geography. The geographic point of view; elements of physical landscape; planetary relations, weather, climate, climatic regions, landforms, natural resources. Geography 101 and 111 meet the general education requirement in physical sciences, and Geography 101 and 104 meet the general education requirement in social sciences, in the College of Liberal Arts and Sciences. Lectures and quiz. Credit 5 hours. Students with 95 or more credit hours receive only 4 hours credit.

Geog. 104. World Regional Geography. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Geography 101 or consent of instructor.

Geog. 105. Introductory Economic Geography. Man's utilization of the major economic resources of the world from the standpoint of geographic patterns. Primarily for commerce students but open to others. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 111. Introductory Meteorology. The atmosphere; its composition, functions, and behavior in the production of various weather types; air masses; application to present-day activities. Credit 3 hours. Prerequisite: Geography 101 or consent of instructor.

Geog. 114. Conservation of Natural Resources. Elements of the conservation of natural resources (soils, water, biotic, mineral, recreational) with special emphasis given to the general principles of conservation as they apply to the United States. Credit 3 hours. Prerequisite: Sophomore standing. II.

Geog. 123. Geography of Illinois. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. Credit 3 hours. Prerequisite: Geography 101 or 104, or consent of instructor. II.

GEOLOGY

Geol. 101. Physical Geology. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. Geology 101 and 102 meet the general education requirement in the physical sciences. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit.

Geol. 102. Historical Geology. Evolution of the earth and its life. Lectures and laboratory. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Geology 101 or Division of General Studies 142.

Geol. 110. Field Work. Field observation in St. Francois Mountains and adjacent parts of Missouri and Illinois. (During spring vacation.) Two three-hour class meetings to be arranged. Credit is given only on completion of a satisfactory written report. Credit 2 hours. Prerequisite: Geology 101, 150, or Physical Science 102.

Geol. 131. Mineralogy. A systematic study of minerals. The nature of minerals as crystalline materials, and their geologic relations are emphasized. Crystal models, crystals, and the common non-silicate minerals are studied in the laboratory. Lecture and laboratory. Credit 4 hours. Prerequisite: One semester of college chemistry. I.

Geol. 132. Mineralogy. A systematic study of minerals and rocks. The geologic relationships of minerals and rocks are emphasized. The common silicate minerals and the important varieties of rocks are studied in the laboratory. Lecture and laboratory. Credit 4 hours. Prerequisite: Geology 131. II.

Geol. 150. Geology for Engineers. Credit 3 hours. Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

German 101. Elementary Course. Oral practice, reading, and grammar for beginners. Not open to students who have high school credit in this language. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102.

German 102. Elementary Course. Continuation of German 101. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German.

German 103. Intermediate Course. Modern narrative prose. Oral practice and sight reading. Credit 4 hours. Prerequisite: German 102, two years of high school German, or equivalent.

German 104. Intermediate Course. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. Credit 4 hours. Prerequisite: German 103, three years of high school German, or equivalent.

German 113. Practice in Conversation. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. Credit 2 hours. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104. I.

German 210. Masterpieces of German Literature. Introduction to German literature, in subjects, forms, and ideals. Credit 3 hours. Prerequisite: Two years of college German, or equivalent. II.

HISTORY

Hist. 111. History of Western Civilization to 1815. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the Social Science requirement in Liberal Arts and Sciences. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. I.

Hist. 112. History of Western Civilization from 1815 to the Present. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. II.

Hist. 131. History of England to 1714. A survey of the political and constitutional social and economic, church and cultural, and imperial history of the British people from the beginning of English history through 1714. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. I.

Hist. 132. History of England from 1714 to the Present. A survey of the political and constitutional, social and economic, diplomatic and imperial, and cultural history of the British people from 1714 to the present. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. II.

Hist. 151. History of the United States to 1865. Colonial foundations, movement for independence, early years of the Republic. Credit 3 hours. Prerequisite: Sophomore standing. I.

Hist. 152. History of the United States from 1865 to the Present. A century of national life and organization. Credit 3 hours. Prerequisite: Sophomore standing.

Hist. 181. The Ancient World. Ancient empires and Greece. Credit 3 hours. Prerequisite: Sophomore standing. I.

Hist. 182. The Ancient World. Rome. Credit 3 hours. Prerequisite: Sophomore standing. II.

HUMANITIES

Humanities 101. Values in Literature. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities. Credit 4 hours. I.

Humanities 102. Values in Literature. A general education course designed to guide the student to an understanding and appreciation of values in literature and classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 102 in addition to English 101, 103 or 103. Credit 4 hours. Prerequisite: Humanities 101. II.

Humanities 151. The Heritage of Western Culture. A study of literary masterpieces representing significant contributions to the thinking of the Western World on the topics of man's fate and his personal adjustment to life. This course, plus Humanities 152, satisfies the general education requirement in the humanities. Credit 4 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102. I.

Humanities 152. The Heritage of Western Culture. A study of literary masterpieces representing significant contributions to the thinking of the Western World in relation to the state and society. This course, plus Humanities 151, satisfies the general education requirement in the humanities. Credit 4 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102. II.

HYGIENE

Hygiene 104. Personal and Community Hygiene. This course covers basic principles of hygiene. Especially recommended for those going into teaching, occupational therapy, social work, etc. Credit: 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Hygiene 110. Public Health. Material presented deals with information about community public health problems and the program designed to prevent disease and promote health education. This is especially valuable for all people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

MANAGEMENT

Management 101. Industrial Organization and Management. Organization plans, administrative policies, and management problems with special attention to manufacturing units. Credit 3 hours. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

MARKETING

Marketing 101. Principles of Marketing. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. Credit 3 hours. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

MATHEMATICS

Math. 101. Basic Mathematics. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. For Liberal Arts and Science students only. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include one year of algebra and one year of plane geometry. Credit 3 hours. II.

Math. 102. Basic Mathematics. Continuation of Mathematics 101. Credit 3 hours. Prerequisite: Mathematics 101. I.

Math. 103. Introduction to College Algebra. Fundamental operations, simple equations, factoring, fractions, exponents, radicals, linear equations in more than one variable, graphing, quadratic equations in one unknown. Credit 3 hours. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

Math. 108. Elementary Plane Geometry for Veterans. This course deals with the usual topics of high school geometry. It is designed as a refresher course for veterans who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce and Engineering through this course. No credit.

Math. 109. Fundamentals of Mathematics. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. Credit 4 hours. Prerequisite: Consent of the department. I.

Math. 110. Fundamentals of Mathematics. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. Credit 4 hours. Prerequisite: Mathematics 109. II.

Math. 112. College Algebra. Theory of quadratic equations, progressions, binomial theorem, permutations, combinations, determinants, introduction to the theory of equations, logarithms. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 114. Plane Trigonometry. Identities, equations, addition formulas and derived relations, solution of right and oblique triangles, radian measure, inverse functions. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 123. Analytic Geometry. Geometrical properties of curves and surfaces, coordinate systems, translation and rotation of axes, higher plane curves, parametric equations. Credit 5 hours. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 112 and 114.

Math. 133. Calculus. First course for students of mathematics and engineering. Theory of limits, differentiation and integration of standard algebraic and trigonometric forms, integration as a process of summation, applications. Credit 3 hours. Prerequisite: Mathematics 123.

Math. 143. Calculus. Second course for students of mathematics and engineering. Integration of rational fractions, integration by parts, series and expansion of functions, hyperbolic functions, partial differentiation, multiple integrals, applications. Credit 5 hours. Prerequisite: Mathematics 133.

Math. 161. Statistics. Credit 3 hours. Prerequisite: Mathematics 112; sophomore standing. II

Math. 343. Advanced Calculus: Credit 3 hours. II. Prerequisite: One year of calculus.

Math. 345. Differential Equations and Orthogonal Functions. Credit 3 hours. Prerequisite: One year of calculus.

MECHANICAL ENGINEERING

M. E. 182. Manufacturing Processes. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. Credit 3 hours. Prerequisite: General Engineering 101, sophomore standing.

M. E. 183. Materials Casting. Casting as a process of fabrication; the molding process including machine molding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. Credit 3 hours. Prerequisite: General Engineering 101; sophomore standing.

M. E. 184. Metal Processing. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. Credit 3 hours. Prerequisite: General Engineering 101; credit or registration in Integral Calculus and Physics 108.

M. E. 209. Thermodynamics and Heat Transfer. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles and processes involving transfers of mass and energy. Basic laws of heat transfer. Credit 3 hours. Prerequisite: Physics 108; Mathematics 142 or 143.

MILITARY SCIENCE AND TACTICS

Mil. Sci. 101. Freshman Basic Drill and Theory. Basic military instruction to include: Organization of the Army and ROTC; individual weapons and marksmanship, and leadership, drill and command. Credit 1 hour. Prerequisite: Military Science department approval. I.

Mil. Sci. 102. Freshman Basic Drill and Theory. Basic military instruction to include: American military history, and leadership, drill, and command. Credit 1 hour. Prerequisite: Military Science 101 or equivalent. II.

Mil. Sci. 103. Sophomore Basic Drill and Theory. Basic military instruction to include: Map and aerial photographs; elementary communications; and leadership, drill, and command. Credit 1 hour. Prerequisite: Military Science 102 or equivalent. I.

Mil. Sci. 104. Sophomore Basic Drill and Theory. Basic military instruction to include: Crew-served weapons and gunnery; basic tactics; and leadership, drill, and command. Credit 1 hour. Prerequisite: Military Science 103 or equivalent. II.

Mil. Sci. 205. Junior Advanced Infantry Drill and Theory. Advanced military instruction to include: Leadership, military teaching methods; crew-served weapons and gunnery; mine warfare; field fortifications; and leadership, drill and command. Credit 1 hour. Prerequisite: Military Science 103 and 104, successful completion of Armed Forces Qualification test, officer-type physical examination and approval of Military Science department. I.

Mil. Sci. 206. Junior Advanced Infantry Drill and Theory. Advanced military instruction to include: Maps and aerial photographs; patrolling; ROCID organization; tactics of the infantry division battle group, rifle company, rifle platoon and weapons platoon; and leadership, drill, and command. Credit 1 hour. Prerequisite: Military Science 205, or Military Science 103 and 104, successful completion of Armed Forces Qualification test, officer-type physical examination and approval of Military Science department. II.

MUSIC

Music 100. Rudiments of Theory. Notation, scales, intervals, chords, terminology. Credit 2 hours.

Music 130. Introduction to the Art of Music, I. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For non-music students only. Credit 3 hours. I.

Music 131. Introduction to the Art of Music, II. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For non-music students only. Credit 3 hours. II.

Music 150. Music Ensemble. Band, Orchestra, Chorus. Admission by consent of director. This course may be repeated to earn a maximum of 2 semester hours of credit. Credit ½ hour.

PHILOSOPHY

Phil. 101. Introduction to Philosophy. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. Phil. 101, 102, 105 form an approved humanities sequence in Liberal Arts and Sciences. Credit 3 hours. Prerequisite: Sophomore standing.

Phil. 102. Logic. Reasoning, detection of fallacies, evidence. Credit 3 hours. Prerequisite: Sophomore standing.

Phil. 105. Moral Ideas and Practice. Credit 2 hours. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

PHYSICAL EDUCATION FOR MEN

P. E. M. 101, 102, 103, 104. Prescribed Exercises. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P. E. M. 101. Students enrolling for the second, third, or fourth time should register for P. E. M. 102, 103, 104, respectively. Credit 1 hour.

P. E. M. 106. Developmental Activities. Activities that contribute to the development and maintenance of physical fitness according to social and hygienic standards. Credit 1 hour.

P. E. M. 107. Beginning Swimming. For non-swimmers (inability to swim 100 yards). Students must have 8:00 and 9:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 109. Advanced Swimming. For swimmers (ability to swim at least 100 yards). Students must have 8:00, 9:00 and 10:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 112. Individual Tumbling Stunts. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 113. Double Tumbling Stunts. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 114. Apparatus Stunts. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 117. Boxing. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 118. Wrestling. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 120. Personal Defense Activities. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 123. Weight Lifting. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 129. Volleyball. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 130. Basketball. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 132. Archery. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 136. Badminton. Skills, knowledge, attitudes, and conditions. Credit 1 hour.

P. E. M. 139. Backyard Sports. Skills, knowledge, and conditions. Credit 1 hour.

P. E. M. 140. Boating and Fishing. Credit 1 hour. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities or approval of the Director of Physical Education. Students must furnish their own personal equipment, but should purchase no equipment until after the first meeting of the class. Boats, canoes, life jackets will be furnished.

P. E. M. 142. Ballroom Dance. Credit 1 hour.

P. E. M. 143. American Square Dance. Credit 1 hour.

P. E. M. 150. Professional Orientation. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors. Credit 2 hours.

P. E. M. 151. Beginning Basketball. Introductory skills, rules and stategy. For physical education majors. Credit 2 hours.

P. E. M. 152. Beginning Football. Introductory skills, rules and strategy. For physical education majors. Credit 2 hours.

P. E. M. 153. Fitness Programs. Physical fitness tests; calisthenics, medicine ball, bulldozer, grass, all-out and locomotor exercises; leadership techniques. For physical education majors. Credit 2 hours.

P. E. M. 154. Swimming. Crawl, back, breast, and side strokes; diving; life saving. To be taken with Physical Education for Men 153. Credit 2 hours.

P. E. M. 155. Gymnastics and Wrestling. Tumbling, apparatus stunts, and wrestling skills. Credit 2 hours.

P. E. M. 156. Track and Field and Baseball. Track events, field events, and baseball skills; rules. Credit 2 hours.

RECREATION

Recreation 170. Outdoor Recreational Sports. Soccer, touch football, volleyball, softball, speedball. Credit 2 hours.

Recreation 171. Indoor Recreational Sports. Badminton, handball, paddle tennis, squash, racquets, table tennis, weight lifting. Credit 2 hours.

Recreation 174. Camp Counseling. Objectives, administration, techniques, activity programs, evaluation. Credit 3 hours.

Recreation 176. Principles of Recreation. History of leisure and recreation; concepts of play and recreation; major recreation agencies. Credit 3 hours.

PHYSICAL EDUCATION FOR WOMEN

P. E. W. 100. Conditioning Activities. Credit 1 hour.

P. E. W. 102. Modified Activities. Prescribed recreational sports, relaxation, and exercise. Credit 1 hour. Prerequisite: Recommendation from the Department of Health Service.

P. E. W. 105. Elementary Rhythms. Beginning dance techniques. Credit 1 hour.

P. E. W. 106. Intermediate Rhythms. Intermediate dance techniques, solo and group dance compositions. Credit 1 hour. Prerequisite: Physical Education for Women 105 or consent of instructor.

P. E. W. 110. Elementary Swimming. Credit 1 hour.

P. E. W. 122. Speedball—Volleyball. Credit 1 hour.

P. E. W. 123. Basketball. Credit 1 hour.

P. E. W. 124. Volleyball. Credit 1 hour.

P. E. W. 125. Softball. Credit 1 hour.

P. E. W. 130. Badminton. Personal equipment to be furnished by student. Credit 1 hour.

P. E. W. 131. Golf. Personal equipment to be furnished by student. Credit 1 hour.

P. E. W. 132. Bowling. Credit 1 hour.

P. E. W. 134. Tennis—Archery. Personal equipment to be furnished by the student. Credit 1 hour.

P. E. W. 135. Archery. Personal equipment to be furnished by student. Credit 1 hour.

P. E. W. 140. Boating and Fishing. Open to students who have completed two semesters of physical education, or consent of instructor. Credit 1 hour.

P. E. W. 141. Tumbling and Apparatus Stunts. The side horse, parallel bars, stall bars, buck, etc., are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used. Credit 1 hour.

P. E. W. 142. Ballroom Dance. Credit 1 hour. II.

P. E. W. 143. American Square Dance. Credit 1 hour.

P. E. W. 144. Elementary Folk Dance. Credit 1 hour.

P. E. W. 150. Professional Orientation. Credit 2 hours.

P. E. W. 151. Body Mechanics, Gymnastics and Hockey. Credit 2 hours. For Physical Education majors. I.

P. E. W. 152. Basketball and Softball. Credit 1 hour. For Physical Education majors. II.

P. E. W. 153. Soccer, Speedball and Volleyball. Credit 1 hour. For Physical Education majors. I.

P. E. W. 154. Tumbling, Apparatus and Tennis. Credit 2 hours. For Physical Education majors. II.

Dance 160. Beginning Contemporary Dance. Credit 2 hours. For Physical Education majors. II.

Dance 236. Folk Dance. Credit 1 hour. For Physical Education majors. II.

PHYSICAL SCIENCE

Phys. Sci. 101. Introduction to the Physical Sciences. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Two units of high school mathematics or consent of the department.

Phys. Sci. 102. Introduction to the Physical Sciences. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Physical Science 101.

PHYSICS

Physics 101. General Physics (Mechanics, Heat, Sound). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Credit 5 hours. Prerequisite: Trigonometry.

Physics 102. General Physics (Electricity, Magnetism, Light, and Modern Physics). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Credit 5 hours. Prerequisite: Physics 101.

Physics 106. General Physics (Mechanics). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Credit 4 hours. Prerequisite: Credit or registration in Mathematics 133.

Physics 107. General Physics (Electricity, Magnetism, Modern Physics). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Credit 4 hours. Prerequisite: Physics 106; credit or registration in Mathematics 143. I.

Physics 108. General Physics (Heat, Sound, Light). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Credit 4 hours. Prerequisite: Physics 106; credit or registration in Mathematics 143. II.

Physics 341. Electricity and Magnetism. Lectures, problems, and laboratory. This course is fundamental to advanced courses and should be elected as early as possible by those intending to specialize in physics. Fundamental laws logically developed and summarized in Maxwell's equations. Forces and energies associated with electric and magnetic properties of matter. Generation and propagation of electromagnetic waves. Credit 4 hours. Prerequisite: General physics and calculus. I.

POLITICAL SCIENCE

Pol. Sci. 103. Introduction to Political Science. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: Scope and method of political science; constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy. Credit 3 hours.

Pol. Sci. 104. Introduction to International Politics. This is designed as a survey course. Topics to be covered will include the following: The development of the world system of states; the international political and economic struggle for power; the determination and conduct of foreign policy; problems involved in maintaining peace, and organizations devoted to its maintenance. Credit 3 hours.

Pol. Sci. 150. American Government: Organization and Powers. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. Credit 3 hours. Prerequisite: Sophomore standing.

Pol. Sci. 151. American Government: Functions. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. Credit 3 hours. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

PSYCHOLOGY

Psych. 100. Introduction to Psychology. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. Credit 4 hours. Prerequisite: Second semester freshman standing.

Psych. 125. An Introduction to the Fields of Psychology. An introduction to the basic fields of psychology including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. Credit 4 hours. Students taking this course may not take Psychology 220 at the Urbana campus for credit. Prerequisite: Psychology 100, or equivalent, or junior standing. I.

Psych. 135. Statistical Methods in Psychology. Application of elementary statistical methods to psychological data. No credit for this course will be given to students who receive credit for Economics 170 or Mathematics 161. Credit 3 hours. Prerequisite: Psychology 100. II.

Psych. 145. Industrial Psychology. A consideration of socio-psychological principles of behavior in business and industry and of the scientific methods of investigation in this area, and a survey of specific methods of personnel technology. Credit is not given for both Psych. 145 and Psych. 245 at Urbana. Credit 3 hours. Prerequisite: Psychology 100. II.

Psych. 150. Personality and Human Relations. An introduction to the study of personality in relationship to the social environment. Application of psychological principles to social problems. Credit 3 hours. Prerequisite: Psychology 100 or equivalent. II.

RHETORIC

Rhetoric 100. Freshman Remedial Rhetoric and Composition. Intensive review of fundamentals, with considerable practice in composition. Open to students who fail the placement test for admission to Rhetoric 101. Students passing this course will be admitted to Rhetoric 101 without further examination. No credit.

Rhetoric 101. Freshman Rhetoric and Composition. This course provides elementary training and practice in the comprehension and expression of written English. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: A passing grade on the placement examination or in Rhetoric 100.

Rhetoric 102. Freshman Rhetoric and Composition. This course provides elementary training and practice in the comprehension and expression of written English. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

Rhetoric 133. Principles of Composition. Practice in composition with emphasis on organization, paragraphing and sentence structure. For the student whose career requires competence in writing clear, precise prose as an adjunct to other professional activity. Credit 3 hours. Credit is not given for Rhetoric 133 in addition to Rhetoric 143. Prerequisite: Rhetoric 102 or equivalent. I.

Rhetoric 143. Intermediate Expository Writing. Practice in expository types, with emphasis on style and critical analysis. Recommended for rhetoric majors. Credit 3 hours. Credit is not given for Rhetoric 143 in addition to Rhetoric 133. Prerequisite: A grade of "A" or "B" in Rhetoric 102 or consent of instructor.

Rhetoric 144. Narrative Writing. Practice in description, narrative sketches, stories. Credit 3 hours. Prerequisite: Rhetoric 101 and 102; sophomore standing. II.

Rhetoric 151. Business Letter Writing. Credit 3 hours. Prerequisite: Rhetoric 102. This course is not counted toward a major in English.

SOCIAL SCIENCES

Soc. Sci. 111. The Individual in Society. A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. Credit 4 hours. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 112. Bases of American Life. A general education course designed to acquaint the student with the physical, economic, political, and social developments of the United States and to equip him for intelligent active participation in local and national life. Credit 4 hours. Credit is not given for this course to a student with credit, or concurrent registration, in Political Science 150 or 151 or History 151 or 152. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 113. World Patterns and World Problems. A general education course designed to bring the student to an understanding of the geographic, economic, and political bases of the present world situation. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 116. Family Living. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. Credit 4 hours. Prerequisite: Sophomore standing or consent of instructor.

SOCIOLOGY AND ANTHROPOLOGY

SOCIOLOGY

Sociol. 100. Introduction to Sociology. Introductory analysis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. Credit 3 hours. Prerequisite: Sophomore standing.

Sociol. 130. Society and Individual Development. Nature of person and relation to institutions, social order, and development. Credit 3 hours. Prerequisite: Sociology 100. I.

Sociol. 140. Social Control. The methods and techniques of group social control of individuals in small groups, societies, and large publics; the innovations in methods of social control resulting from the development of the new mass media of communication. Credit 3 hours. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152. II.

Sociol. 276. Sociology of the City. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. Credit 3 hours. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

ANTHROPOLOGY

Anthrop. 102. Introduction to Anthropology: The Origin of Man and Culture. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. Credit 3 hours. I.

Anthrop. 103. Introduction to Anthropology: The Growth of Culture. An introduction to and survey of the development of cultures with special attention to invention, diffusion, adaptation, integration, and other processes of cultural growth as illustrated by primitive and native populations of the world. Recommended though not required to be taken with Anthropology 102 as a survey of the field of anthropology. Credit 3 hours. II.

SPANISH

Spanish 101. Elementary Spanish. For students who have no credit in Spanish. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for Spanish 101 without 102.

Spanish 102. Elementary Spanish. Continuation of Spanish 101. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish.

Spanish 103. Intermediate Spanish. Rapid reading, review of grammar, composition, conversation. Credit 4 hours. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 104. Intermediate Spanish. Continuation of Spanish 103. Credit 4 hours. Prerequisite: Spanish 103 or three years of high school Spanish.

Spanish 113. Elementary Composition and Conversation. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. Credit 2 hours. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 201. Introduction to Spanish Literature. Reading of modern authors of Spain and Spanish America. Credit 3 hours. Prerequisite: Spanish 104 or four years of high school Spanish. I.

Spanish 202. Introduction to Spanish Literature. Reading of modern authors of Spain and Spanish America. Credit 3 hours. Prerequisite: Spanish 201 or consent of instructor.

SPEECH

Group Remedial Speech. Students with articulatory problems, particularly those with foreign dialects, may register for this course at the Student Counseling Service, Room 303, in advance of the dates specified. Prerequisite: Consent of the instructor. No credit.

Speech 101. Principles of Effective Speaking. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: A passing grade in Rhetoric 101 placement examination or a passing grade in Rhetoric 100.

Speech 105. Voice and Articulation. A drill course for the improvement of the normal speaking voice. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Speech 107. Parliamentary Procedure. Principles and practice of parliamentary procedure. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Speech 111. Business and Professional Speaking. Study, preparation, and presentation of the chief types of business speeches, with special attention to conferences, sales talks, interviews, job applications. Credit 2 hours. Prerequisite: Speech 101; sophomore standing.

Speech 117. Argumentation. Methods of logical analysis; the kinds and forms of argument; the adaptation of argumentative materials to audience situations; and the forms of debate. Practice debates on current subjects. Credit 3 hours. Prerequisite: Speech 101; sophomore standing.

Speech 141. Oral Interpretation of Literature. Principles of interpretation, analysis, and oral reading of prose literature and verse. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Speech 161. Fundamentals of Acting. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. Credit 3 hours. Prerequisite: Speech 141. II.

Speech 164. Radio Speaking. Preparation and presentation of the chief types of radio speeches, and of the interview, round table, and discussion; microphone experience. Credit 2 hours. Prerequisite: Consent of instructor. II.

THEORETICAL AND APPLIED MECHANICS

T. A. M. 150. Analytical Mechanics (Statics). Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic states, forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. Credit 2 hours. Prerequisite: Registration in Mathematics 143.

T. A. M. 151. Analytical Mechanics (Statics). Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic statics, moment diagrams, virtual work, forces due to friction centroid. Credit 3 hours. Prerequisite: Registration in Math. 143.

T. A. M. 154. Analytical Mechanics (Statics and Dynamics). A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. Credit 4 hours. Prerequisite: Registration in Mathematics 143.

T. A. M. 156. Analytical Mechanics (Statics and Dynamics). A combination of Theoretical and Applied Mechanics 150 and 211. Credit 5 hours. Prerequisite: Registration in Mathematics 143.

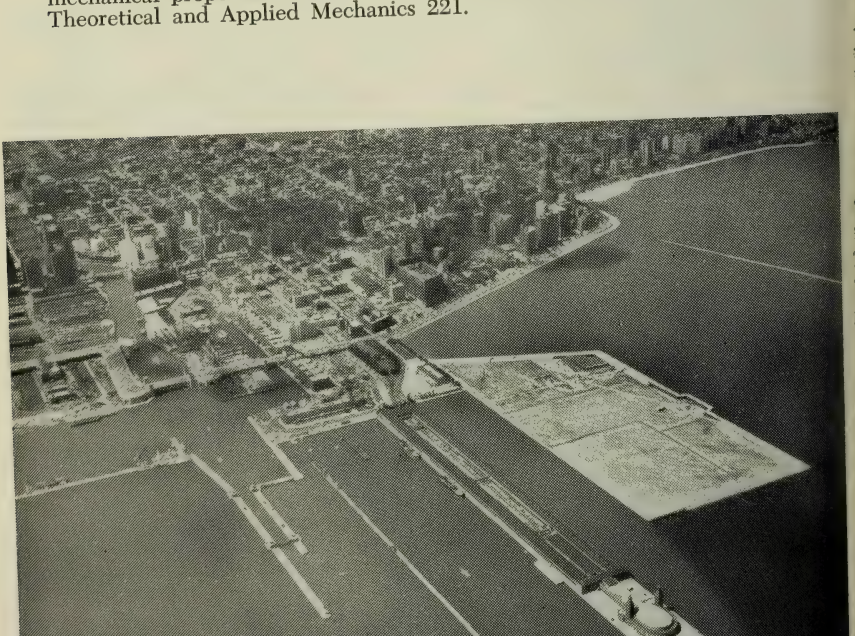
T. A. M. 171. Elements of Mechanics (Statics). Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. Credit 3 hours. Prerequisite: Mathematics 123.

T. A. M. 172. Strength of Materials. Relationships between external forces acting on beams and the stresses produced, shear, moment, slope and deflection diagrams, moment of inertia; columns. For architects only. Credit 3 hours. Prerequisite: Theoretical and Applied Mechanics 171.

T. A. M. 211. Analytical Mechanics (Dynamics). Displacement, velocity, and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation, rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, impulse and momentum. Credit 3 hours. Prerequisite: Theoretical and Applied Mechanics 150 or 151.

T. A. M. 221. Elementary Mechanics of Deformable Bodies. Relationships between external forces acting on elastic bodies and the stresses and deformations produced; tension and compression members; members subjected to torsion and to bending; columns; combined stresses; properties of materials. Credit 3 hours. Prerequisite: Theoretical and Applied Mechanics 150, 151, 154 or 156.

T. A. M. 223. Mechanical Behavior of Solids. Tests of steel, cast iron, aluminum alloys, concrete and wood; determination of such mechanical properties as strength, hardness, ductility, energy, resistance; engineering significance of mechanical properties. Credit 1 hour. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.



Index

Accountancy courses, 90
Activities, extra-curricular, 45
  Student fee, 34
Administrative officers, 11
Admission, 23
  Examinations, 31
  Requirements, 24
    Non-resident students, 30
    Special admissions, 33
    Special scholastic requirements, 30
    Subjects for specific college and curricula, 26
    Transfer students, 28
Aeronautical Engineering, curriculum, 62
Anthropology courses, 106
Architectural Engineering, curriculum, 68
Architecture, 66
  Architecture courses, 90
  Curriculum, 68
  Electives, 67
Army Reserve Officers' Training Corps, 86
  Courses, 101
Art, 69
  Art courses, 91
  Curriculum, 69
Athletics, 49

Biological Sciences courses, 91
Board of Trustees, 10
Bookstore, 51
Business Law, 100
Calendar, 21
Ceramic Engineering curriculum, 63
Chemical Engineering, curriculum, 74
Chemistry courses, 92
  Curriculum, 74
Chicago Departments Committee, 10
Civil Engineering, courses, 91
  Curriculum, 63
Commerce and Business Administration, College of, 55
  Commerce and Law, 56
  Commercial teaching, 59
  Electives, 56
  Pre-journalism, 57
  Requirements for all commerce students, 58
  Requirements for graduation, 55
Courses of instruction, 90
  Required of all students, 53

Dean of Men, 41
Dean of Students, 41
Dean of Women, 42
Debating, 48
Dentistry, pre-dental curriculum, 78

Economics courses, 94
Education courses, 95
Electives, Architecture, 67
  Commerce, 56
Liberal Arts and Sciences, 73
Electrical Engineering courses, 95
  Curriculum, 63
Employment, student, 39
Engineering, College of, 60

Aeronautical, 62
Ceramic, 63
Civil, 63
Common program for freshmen, 62
Electrical, 63
Engineering Physics, 63
General Engineering, 64
Industrial, 64
Liberal Arts combined program, 80
Mechanical, 65
Metallurgical, 65
Theoretical and Applied Mechanics, 65
Requirements for graduation, 60
Engineering Physics, curriculum, 63
English courses, 95
Examinations, entrance, 31
General education development, 33
Extra-curricular activities, 45

Faculty, 12
Fees, see Tuition and Fees
Food Service, 52
French courses, 96
General Engineering courses, 96
Curriculum, 64
Geography courses, 97
Geology courses, 97
German courses, 97
Grading system, 53

Health Service, 52
History courses, 98
Home Economics curriculum, 81
Hospital and Medical Service, 44
Humanities courses, 98
Hygiene courses, 99

Industrial Engineering, curriculum, 64
Journalism and Communications, pre-journalism curriculum, 57, 82

Law, pre-law curriculum, 56, 79
Liberal Arts and Sciences, College of, 70
Chemistry and Chemical Engineering, 74
Continuation program in nursing, 78
Requirements for admission, 78
Engineering combined program, 80
General curriculum, 70
Home Economics, 81
Occupational Therapy, 80
Nursing, 78
Physics, 76
Pre-dental, 78
Pre-journalism, 82
Pre-law, 79
Pre-medical, 77
Pre-veterinary medicine, 79
Required subjects, 71
Requirements for graduation, 71
Teacher Education, 81
Library, 50
Loan funds, 39

Management, 99
Marketing, 99
Mathematics courses, 99

Mechanical Engineering courses, 100
Curriculum, 65
Medicine, pre-medical curriculum, 77
Metallurgical Engineering, curriculum, 65
Military Science and Tactics courses, 101
Miscellaneous fees, 36
Music, courses, 101

Non-resident students, admission, 30
Nursing, 78
Continuation program, 78

Occupational Therapy, 80

Philosophy courses, 101
Physical Education, College of, 83
Courses, 102
Physical Science courses, 103
Physics courses, 104
Political Science courses, 104
Pre-journalism, curricula, 57, 82
Pre-law, curricula, 56, 79
Psychology courses, 105

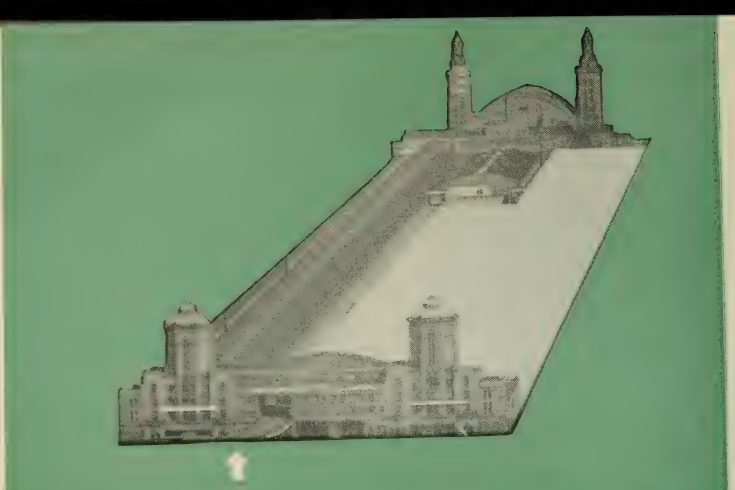
Recreation courses, 102
Refunds of fees, 35
Rhetoric courses, 105

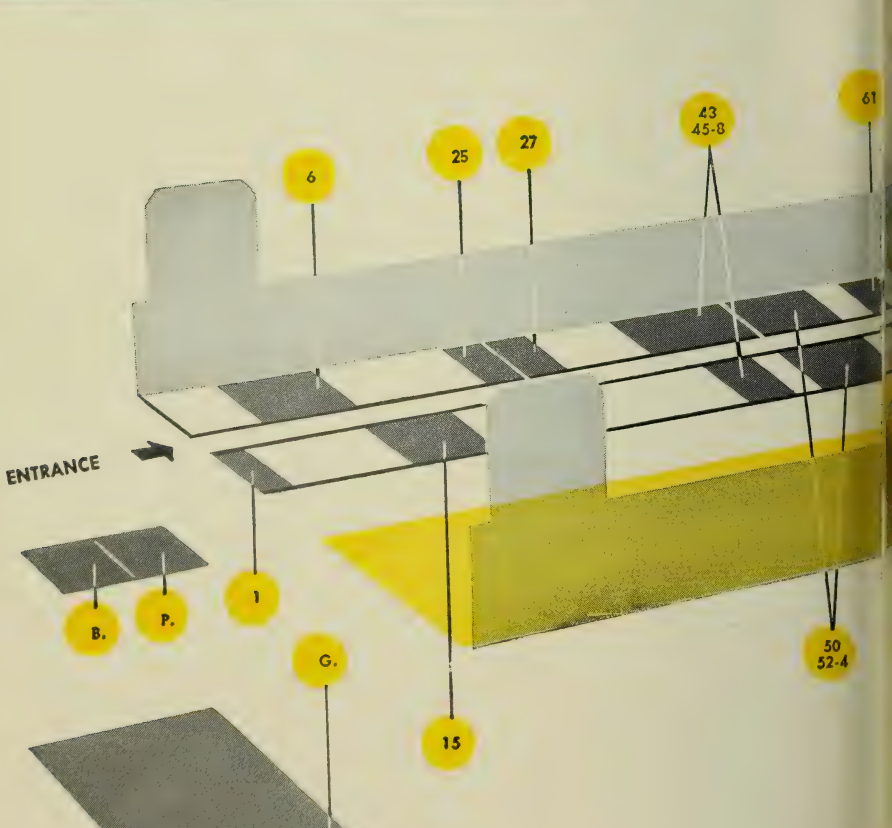
Scholarships, 39
Selective Service deferment, 39
Semester fees, 34
Social Science courses, 105
Sociology courses, 106
Spanish course, 106
Special scholastic requirements, admission, 30
Speech Improvement Laboratory, 43
Speech courses, 107
Student Counseling Service, 42
Student Welfare, 40
Dean of Men, 41
Dean of Students, 41
Dean of Women, 42
Hospital and Medical Service, 44
Loan funds, 39
Speech Improvement Laboratory, 43
Student Counseling Service, 42
Student Employment, 39
Subjects required for specific college and curricula, 26
Summer Session fees, 35

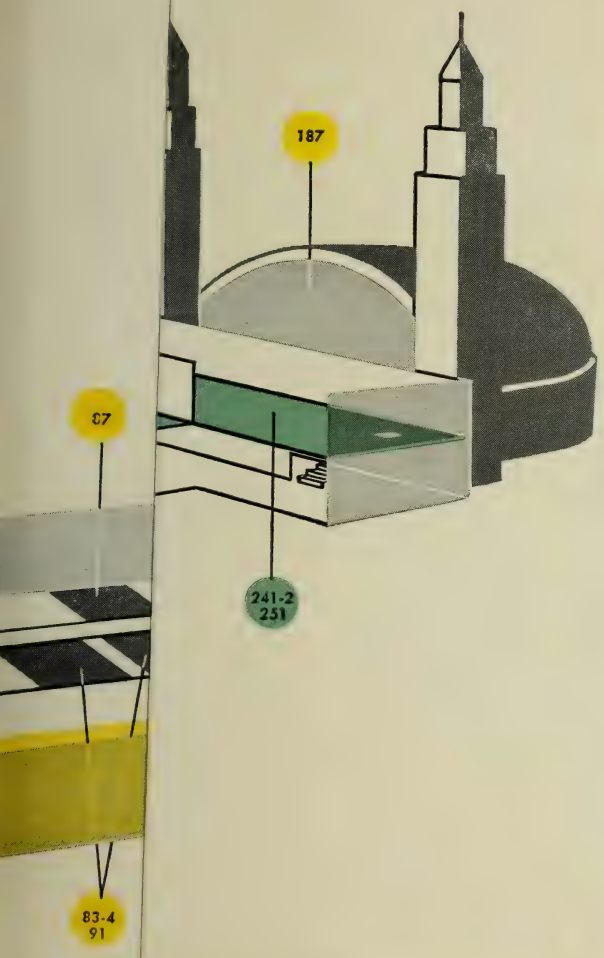
Teacher Education, curricula, 81
Theoretical and Applied Mechanics courses, 107
Curriculum, 65
Transfer students, admission, 28
Tuition and Fees, 34
Miscellaneous fees, 36
Refunds, 35
Semester fees, 34
Smmer Session fees, 35

University Services, 50
Urbana, transfer to, 33

Veterans information, 37
Veterinary Medicine, pre-veterinary medicine cirriculum, 79




6
25
27
43
45-8
61
ENTRANCE
B.
P.
1
G.
15
50
52-4



IEERING

EN'S

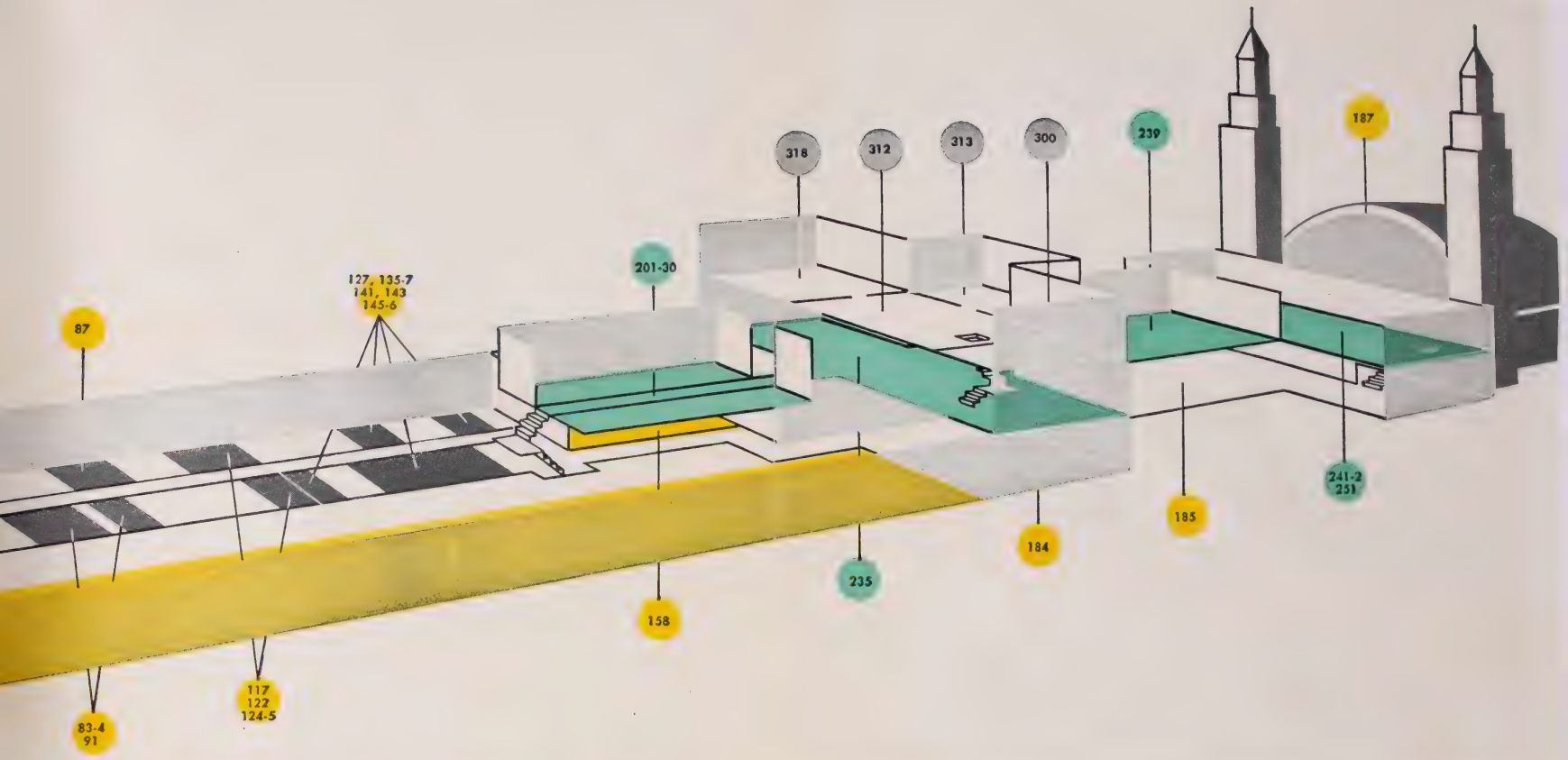
241-2 251 ARCHITECTURE ROOMS

300 STUDENT COUNSELING BUREAU

312 LOUNGE

313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN

318 HEALTH SERVICE



ROOM NUMBERS OF DEPARTMENTS AND POINTS OF INTEREST

- B. RESERVE BOOK SECTION
- P. POLICE HEADQUARTERS
- G. MEN'S GYM
- 1 INFORMATION DESK
- 6 SNACK BAR AND LOUNGE
- 15 ADMISSIONS AND RECORDS OFFICE
- 25 ASSOC. DEAN OF LAS
- 27 ASSOC. DEAN OF COMMERCE
- 43, 45-8 BIOLOGICAL SCIENCES LABORATORIES
- 50, 52-4 CHEMISTRY LABORATORIES
- 61 CONCRETE TESTING LABORATORY
- 64 MACHINE SHOP
- 70-1, 77 WELDING LABORATORY, FOUNDRY, SAND TESTING LABORATORY
- 83-4, 91 ART ROOMS
- 87 BOOKSTORE
- 117, 122, 124-5 PHYSICS LABORATORIES
- 127, 135-7, 141, 143, 145-6 GENERAL ENGINEERING DRAWING
- 158 PHYSICAL PLANT
- 184 ASSOC. DEAN OF ENGINEERING
- 185 STUDENT CAFETERIA
- 187 AUDITORIUM AND WOMEN'S GYM
- 201-30 LECTURE ROOMS AND CLASSROOMS
- 235 LOUNGE
- 239 LIBRARY
- 241-2, 251 ARCHITECTURE ROOMS
- 300 STUDENT COUNSELING BUREAU
- 312 LOUNGE
- 313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN
- 318 HEALTH SERVICE

C
IZ U3Ic
1959/60
Cop. 2

ALOG

UNIVERSITY OF ILLINOIS

CHICAGO UNDERGRADUATE DIVISION

THE LIBRARY OF THE
AUG 1 4 1959
UNIVERSITY OF ILLINOIS

UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

Chicago Professional Colleges

PUBLIC TRANSPORTATION

TO CHICAGO UNDERGRADUATE DIVISION

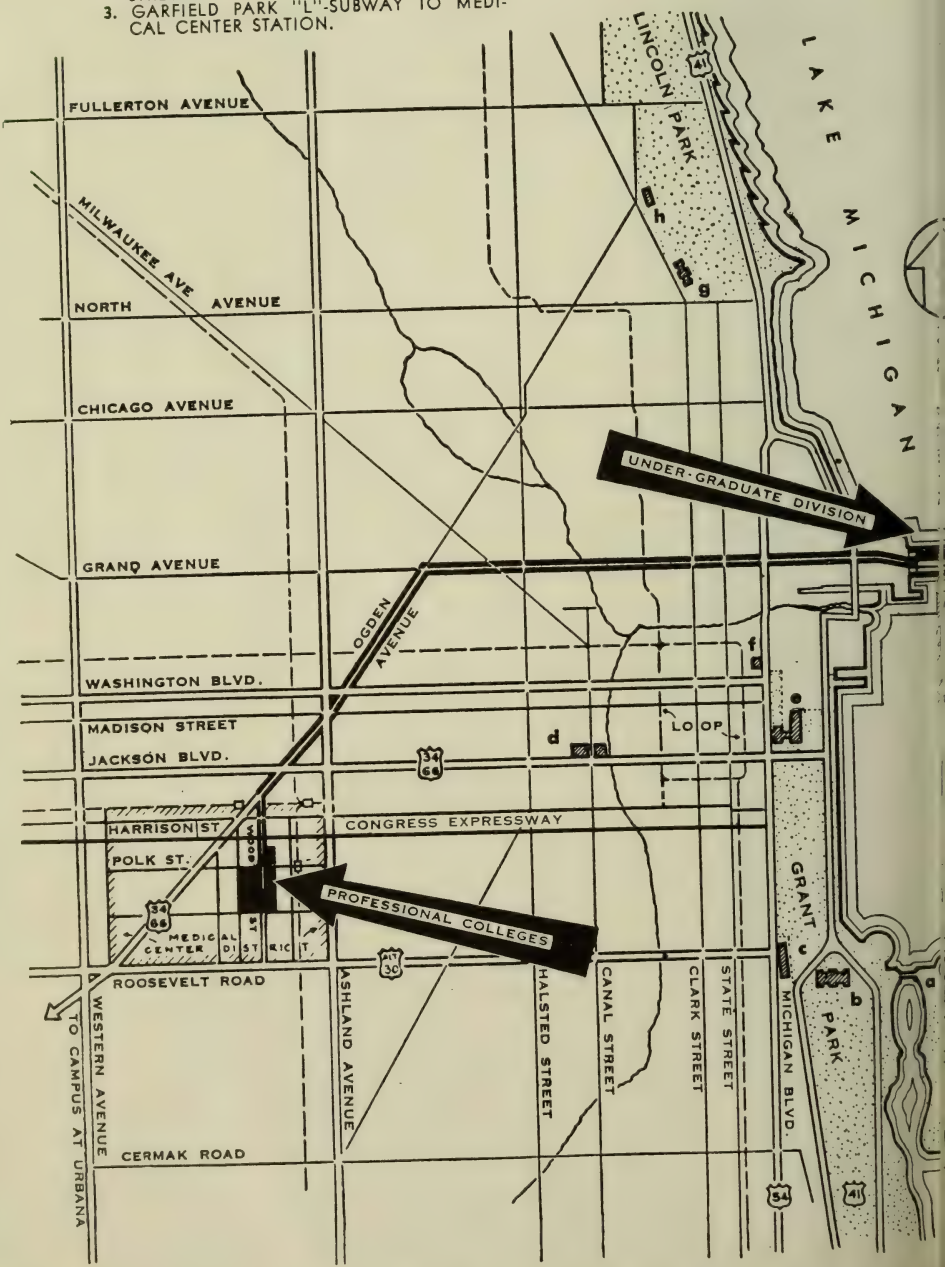
1. NORTH-SOUTH SUBWAY, TRANSFER AT GRAND AVENUE.
2. ANY NORTH-SOUTH BUS LINE, TRANSFER AT GRAND AVENUE.
3. GRAND AVENUE BUS.
4. CANAL-WACKER BUS (FROM LOOP).

TO PROFESSIONAL COLLEGES

1. N. OGDEN AVENUE BUS TO POLK-WOOD STREETS.
2. DOUGLAS PARK "L"-SUBWAY TO POLK STREET.
3. GARFIELD PARK "L"-SUBWAY TO MEDICAL CENTER STATION.

LEGEND

- a ADLER PLANETARIUM
- b CHICAGO NATURAL HISTORY MUSEU
- c ILLINOIS CENTRAL R.R. STATION
- d UNION R.R. STATION
- e ART INSTITUTE
- f CRERAR LIBRARY
- g CHICAGO HISTORICAL SOCIETY
- h CHICAGO ACADEMY OF SCIENCES



University of Illinois

Chicago Undergraduate Division

Navy Pier

Chicago

C
IZ4 3Ic
1959/60
cop 2

Contents

	Page
Your University	4
Board of Trustees	10
Administrative Officers	11
Calendar	12
Faculty	14
Admission	23
Tuition and Fees	35
Veterans' Information	38
Selective Service Deferment	39
Scholarships, Loans and Employment	40
Student Welfare Services	41
Extra-Curricular Activities	46
University Services	52
Courses Required of All Students	55
College of Commerce and Business Administration	57
College of Engineering	62
Architecture and Art	68
College of Liberal Arts and Sciences	72
College of Physical Education	85
Army Reserve Officers' Training Corps	88
Courses of Instruction	91
ndex	112

Your University

The Chicago Undergraduate Division of the University of Illinois is entering its fourteenth school year. Since 1946 this campus of the University has offered a well-rounded educational program to thousands of students who have found it to their advantage to live in the Chicago metropolitan area while attending college. The campus is conveniently located on Chicago's Navy Pier, at the foot of Grand Avenue at Lake Michigan. This Division offers work in four colleges—Commerce and Business Administration, Engineering (including Architecture, Architectural Engineering, and Art), Liberal Arts and Sciences, and Physical Education for Men and Women.

In addition, pre-professional courses of study necessary for admission to the professional colleges of medicine, dentistry, veterinary medicine, education, journalism, law, nursing and occupational therapy are available.

The courses, held during the daytime hours only, are exactly like those offered in the same fields of study on the University of Illinois campus at Urbana-Champaign. The schedule of fees and admission requirements are the same on both campuses.

Excellent instructional facilities are provided in the school's sixty-eight classrooms and thirty-three modern, fully-equipped laboratories. An 85,000-volume library, recreational facilities, well-furnished lounges and food service supplement the academic program. A large gymnasium adjacent to the main building houses the athletic program. The basic courses in Army R.O.T.C. are available on a voluntary basis for men students.

The academic life of the student is supervised by the dean and the staff of the college in which the student enrolls. For most matters of student welfare and activities, the student is advised by the Dean of Students and his staff. Professional counseling and scientific testing services are available to students and prospective students through the Student Counseling Service.

The Chicago Undergraduate Division, through its educational, social, and cultural program, provides its student body with the same high degree of service which has been so long a part of the University of Illinois tradition.

SOME QUESTIONS AND ANSWERS

The University of Illinois welcomes the interest you show by reading this catalogue. The offerings of the Chicago Undergraduate Division are presented in considerable detail in this publication. However, our experience has taught us that there are some questions that are asked more frequently than others.

You will find outlined below some of the items of information most often sought.

• CAN I EARN A DEGREE AT THE CHICAGO UNDERGRADUATE DIVISION?

No, not yet. At the present time this division offers generally the first two years work in:

Commerce and Business Administration; Engineering (Including two and one-half years of Architecture and one year of Art); Liberal Arts and Sciences; Physical Education (Professional courses for both men and women).

• EXCEPTION:

The complete three year *premedical* program is offered at this division. Students apply directly to the College of Medicine after completing this program.

Look on page 9 for a complete listing of the curricula offered.

• NIGHT CLASSES?

Only day classes are offered as part of the program of this division; however,

• EXTRAMURAL COURSES:

The facilities of this division are used at night for extramural courses offered under the auspices of the Division of Extension. Call the Illini Center, RAndolph 6-7750, for further information.

• SCHOOL OF SOCIAL WORK:

Complete graduate degree program is offered in Chicago. Call MOnroe 6-3900, Extension 8351, or write to Room 176, 833 S. Wood Street, Chicago 12, Illinois.

• OTHER UNIVERSITY OF ILLINOIS FACILITIES IN CHICAGO, on the Professional Campus are

Medicine
Dentistry
Pharmacy
Nursing
Occupational Therapy
School of Social Work, Chicago Branch
Graduate School (Health Sciences only)

For information call
MOnroe 6-3900
or write to
University of Illinois
1853 W. Polk Street
Chicago 12, Illinois

- **WHERE IS THE CHICAGO UNDERGRADUATE DIVISION?**
  At the foot of Grand Avenue at Lake Michigan.
- **WHERE IS THE MAIN CAMPUS OF THE UNIVERSITY OF ILLINOIS?**
  In Urbana, about 130 miles south of Chicago.
- **ARE THE COURSES TAUGHT AT THE CHICAGO UNDERGRADUATE DIVISION THE SAME AS THOSE IN URBANA?**
  Yes. One can think of this division as a section of the Urbana campus transplanted to Chicago.
- **TUITION AND FEES:**
  For Illinois Residents, $101 per semester.
  For Non-Residents of Illinois, $276 per semester.
  Payment in full on the day you register; or deferred fee plan (50% at time of registration, balance within 30 days).
- **FINANCIAL AIDS:**
  Scholarships, loans, part-time employment.
- **HOUSING:**
  Since almost all our students live at home, no housing is provided. However, students in need of housing may obtain information from the office of the Dean of Students, Room 313.
- **STUDENT ACTIVITIES:**
  Over forty different student organizations are active on this campus. See Page 46.
- **CORRESPONDENCE COURSES:**
  For information write to
  Division of Extension
  University of Illinois
  Urbana, Illinois
  Correspondence courses are not offered through the facilities of this campus.
- **FOREIGN STUDENTS:**
  Foreign students from twenty-seven different countries throughout the world are now attending this campus.
  Special courses in rhetoric and speech are offered for those who do not have proficiency in the English language because of their foreign background. These classes are designed to take care of the individual needs of the student. Special advisers assist foreign born students evaluate their abilities, plan their programs and interpret regulations applicable to foreign students, including assistance on problems of extension of stay, permission to accept employment, border-crossing and the details of maintaining legal status.

• A FEW STATISTICS:

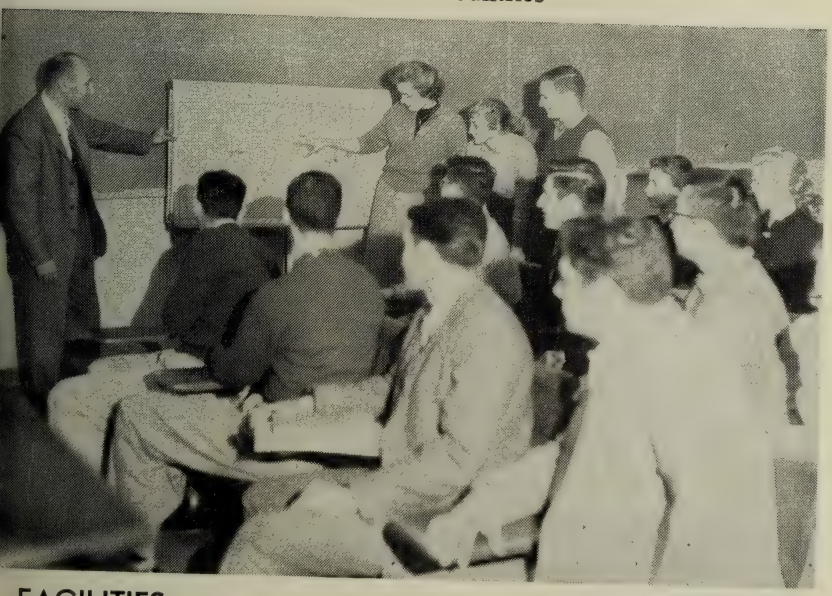
98% of our students are Illinois residents.

The Illinois residents come from the following countries:

Cook	96%
Du Page	2%
Lake	0.8%
15 other counties	1.2%

2% of our students are non-residents of Illinois and they come from:

15 different states
1 territory
27 different countries



FACILITIES:

68 classrooms
33 modern, fully equipped laboratories
85,000 volume library
Recreational facilities and lounges
Food Service
Gymnasium facilities for men and women
Auditorium facilities for educational, social and special events
Radio, television, recording equipment
Book store
Student newspaper and photography facilities
Musical instruments for loan
Record library and listening facilities
Health Service

- **ATHLETICS:**
  1. Varsity competition in
     - Basketball
     - Baseball
     - Cross country
     - Football
     - Golf
     - Gymnastics
     - Soccer
     - Swimming
     - Tennis
     - Track and Field
     - Wrestling
  2. Intra-mural sports program serves over 1200 students each semester.
  3. Women's Athletic Association
     - Orchesis
     - Sports activities
- **STUDENT COUNSELING SERVICES:**
  Educational and Vocational guidance counseling. See pages 43-44.
- **CURRICULA IN MUSIC ARE NOT OFFERED ON THIS CAMPUS.**
  (But certain courses are.)
- **IS ROTC REQUIRED?**
  Participation is urged, but not required. If started, must be completed. See pages 88-90.
- **PHYSICAL EDUCATION:**
  Generally, all students must earn credit in four semesters of physical education for the bachelor's degree. See page 55.
  Registration in ROTC does not exempt students from the degree requirements in physical education.

• COLLEGES AND CURRICULA OFFERED

LIBERAL ARTS AND SCIENCES

Chemical Engineering
Chemistry
Combined Engineering-Liberal Arts
Forestry
General
Occupational Therapy
Pharmacy (First Year)
Physics
Speech Correction
Pre-professional curricula:
- Pre-Dentistry
- Pre-Journalism
- Pre-Law
- Pre-Medicine
- Pre-Nursing
- Pre-Veterinary Medicine

Teacher Education Curricula:
- Biology
- Chemistry
- Deaf and Hard of Hearing
- Elementary Education
- English
- French
- Geography
- German
- Home Economics
- Industrial Education
- Mathematics
- Mathematics and Physical Sciences
- Mentally Handicapped Children
- Music Education
- Physics
- Social Studies
- Spanish
- Speech

COMMERCE

Common program for all Commerce Students
Commercial Teaching

Pre-Journalism
Pre-Law

ENGINEERING

Aeronautical
Agricultural
Ceramic
Civil
Electrical
Engineering Mechanics
Engineering Physics
General

Industrial
Mechanical
Metallurgical
Mining
Sanitary
Combined Liberal Arts-Engineering

Architecture Design
Architectural Construction

Art Education
Industrial Design

History of Art
Advertising Design
Painting

PHYSICAL EDUCATION

Physical Education for Men
Physical Education for Women

Dance
Health Education
Recreation

Board of Trustees

UNIVERSITY OF ILLINOIS

Members Ex-Officio

WILLIAM G. STRATTON, Governor of Illinois ..... Springfield
GEORGE T. WILKINS, Superintendent of Public Instruction ..... Springfield

Elected Members

Term 1955-1961

WIRT HERRICK ..... 120½ E. Main St., Clinton
MRS. FRANCES B. WATKINS ..... 5312 Cornell Ave., Chicago 15
KENNEY E. WILLIAMSON ..... Sixth Floor, Lehmann Building, Peoria 2

Term 1957-1963

WAYNE A. JOHNSTON ..... 135 E. Eleventh Place, Chicago 5
EARL M. HUGHES ..... Hughes Farms, Route 1, Woodstock
TIMOTHY W. SWAIN ..... 912 Central National Bank Building, Peoria 2

Term 1959-1965

HOWARD W. CLEMENT ..... 38 S. Dearborn St., Chicago 3
RICHARD A. HAREWOOD ..... 733 E. 75th St., Chicago 19
HAROLD POGUE ..... 705 N. Oakland Ave., Decatur

Officers of the Board

KENNEY E. WILLIAMSON, President ..... Peoria
ANTHONY J. JANATA, Secretary ..... Urbana
CLARENCE W. WELDON ..... Chicago 90
HERBERT O. FARBER, Comptroller ..... Urbana

Committee on the Chicago Departments

MRS. FRANCES B. WATKINS, Chairman, WAYNE A. JOHNSTON,
HAROLD POGUE

Administrative Officers

Urbana

DAVID DODDS HENRY ..... President
GORDON N. RAY ..... Provost and Vice President
CHARLES WILSON SANFORD ..... Dean of Admissions

Chicago Undergraduate Division

CHARLES C. CAVENY ..... Executive Dean
HAROLD N. COOLEY ..... Assistant Dean
ROBERT P. HACKETT ..... Associate Dean
Commerce and Business Administration
WILLIAM J. DUNNE ..... Assistant Dean
Commerce and Business Administration
FREDERICK W. TREZISE ..... Associate Dean
Engineering
RUPERT M. PRICE ..... Assistant Dean
Engineering
HAROLD W. BAILEY ..... Associate Dean
Liberal Arts and Sciences
WILLIS C. JACKMAN ..... Assistant Dean
Liberal Arts and Sciences
ELLIS B. LITTLE ..... Assistant Dean
Liberal Arts and Sciences
JOHN O. JONES ..... Associate Dean
Physical Education and Director of Athletics
WARREN O. BROWN ..... Associate Dean of Students
Foreign Students Advisor and Veterans Counselor
AGNES G. TANDBERG ..... Dean of Women
MERTON S. ZAHRT ..... Assistant to the Dean of Students
HAROLD E. TEMMER ..... Associate Dean of Admissions and Records
PAUL C. GREENE ..... Director, Student Counseling Service
H. GORDON REID, M.D. ..... Director, Health Service
EDWARD M. HEILIGER ..... Librarian
ROBERT L. ZANDER ..... Assistant Superintendent
of Buildings and Grounds
ROBERT E. PORTER ..... Assistant to the Business Manager
JOHN H. WORTHINGTON ..... Manager, Public Information
SY HANDWERKER ..... Assistant Manager, Public Information
LEONARD D. HARPER ..... Personnel Officer
DANIEL L. CRUMPACKER, Major USA ..... Commandant, Army ROTC Unit

Calendar

Chicago Undergraduate Division

First Semester (Fall 1959)

Sept. 8, Tues. - Sept. 16, Wed. ..... Orientation Period
Sept. 17, Thurs. - Sept. 18, Fri. ..... Registration
Sept. 21, Mon. ..... Instruction Begins
Nov. 25, Wed., 6 p.m. ..... Thanksgiving Vacation Begins
Nov. 30, Mon., 8 a.m. ..... Thanksgiving Vacation Ends
Dec. 3, Thurs. ..... Illinois Day (State admitted to Union, 1818—Not a holiday)
Dec. 18, Fri., 6 p.m. ..... Christmas Vacation Begins
Jan. 4, Mon., 8 a.m. ..... Christmas Vacation Ends
Jan. 15, Fri. - Jan. 22, Fri. ..... Semester Examinations

Second Semester (Spring 1960)

Jan. 29, Fri. - Feb. 3, Wed. ..... Orientation Period
Feb. 4, Thurs. - Feb. 5, Fri. ..... Registration
Feb. 8, Mon. ..... Instruction Begins
Mar. 2, Wed. ..... University Day (University opened 1868—Not a holiday)
April 14, Thurs., 6 p.m.. ..... Easter Vacation Begins
April 20, Wed., 8 a.m. ..... Easter Vacation Ends
May 13, Fri. ..... Honors Day
May 30, Mon. ..... Memorial Day (Holiday)
May 26, Thurs. - June 3, Fri. ..... Semester Examinations

Summer Session 1960

June 17, Fri. ..... Registration
June 20, Mon. ..... Instruction Begins
July 4, Mon. ..... Independence Day (Holiday)
Aug. 12, Fri. ..... Summer Session Examinations

Calendar

Urbana

First Semester (Fall 1959)

Sept. 8, Tues. - Sept. 11, Fri. ..... Entrance Examinations
Sept. 14, Mon. - Sept. 19, Sat. ..... Freshman Week & Registration
Sept. 21, Mon. ..... Instruction Begins
Nov. 25, Wed., 1 p.m. ..... Thanksgiving Vacation Begins
Nov. 30, Mon., 1 p.m. ..... Thanksgiving Vacation Ends
Dec. 3, Thurs. ..... Illinois Day (State admitted to Union 1818)
Dec. 19, Sat., 1 p.m. ..... Christmas Vacation Begins
Jan. 4, Mon., 8 a.m. ..... Christmas Vacation Ends
Jan. 21, Thurs. ..... Study Day, classes dismissed
Jan. 22, Fri. - Jan. 30, Sat. ..... Semester Examinations

Second Semester (Spring 1960)

Feb. 2, Tues. - Feb. 5, Fri. ..... Entrance Examinations
Feb. 8, Mon. - Feb. 10, Wed. ..... Registration
Feb. 11, Thurs. ..... Instruction Begins
Mar. 2, Wed. ..... University Day (University opened 1868)
Apr. 12, Tues., 1 p.m. ..... Spring Vacation Begins
Apr. 18, Mon., 1 p.m. ..... Spring Vacation Ends
Apr. 29, Fri. ..... Honors Day (Classes dismissed at noon)
May 30, Mon. ..... Memorial Day (Holiday)
May 30, Mon. ..... Study Day, classes dismissed
May 31, Tues. - June 8, Wed. ..... Semester Examinations
June 18, Sat. ..... Commencement Exercises

Summer Session 1960

June 7, Tues. - June 10, Fri. ..... Entrance Examinations
June 20, Mon. ..... Registration
June 21, Tues. ..... Instruction Begins
July 4, Mon. ..... Independence Day (Holiday)
Aug. 12, Fri. - Aug. 13, Sat. ..... Summer Session Examinations

Faculty

CHICAGO UNDERGRADUATE DIVISION
1958-1959

PROFESSORS

Babler, Bernard J., Ph.D., Physical Sciences.

Bailey, Harold W., Ph.D., LL.D., Mathematics; Associate Dean of Liberal Arts and Sciences.

Barber, Hollis W., Ph.D., Political Science.

Carlson, Clarence I., B.S., General Engineering; Head of the Department of General Engineering.

Caveny, Charles C., Executive Dean, Chicago Undergraduate Division.

Cobb, Arnold C., M.S., Theoretical and Applied Mechanics.

Crum, Ferris B., Ph.D., Physical Sciences.

Cutshall, Alden D., Ph.D., Geography.

Derrick, Lucile, Ph.D., Economics.

Fox, Samuel, J.D., Ph.D., Accountancy.

Frank, Evelyn, Ph.D., Mathematics.

Goppert, Harold R., M.S., General Engineering.

Grampp, William D., Ph.D., Economics.

Greene, Paul C., Ph.D., Psychology; Director, Student Counseling Service.

Hackett, Robert P., Ph.D., Accountancy; Associate Dean of Commerce and Business Administration.

Huitema, Roy, Ph.D., Physical Sciences.

Jones, John O., M.S., Physical Education for Men; Associate Dean of Physical Education.

Klassen, Peter P., Ph.D., Sociology.

Lipman, Eli A., Ph.D., Psychology.

McEldowney, Harold B., B.S., Architecture; Head of the Department of Architecture and Art.

Meloy, Carl R., Ph.D. Physical Sciences; Head of the Division of Physical Sciences.

Nowlan, Frederic S., Ph.D., Mathematics, *emeritus*.

Railsback, Ora L., Ph.D., Physics; Head of the Physics Department.

Riddle, Donald W., Ph.D., History; Head of the Division of Social Sciences.

Thompson, Wayne N., Ph.D., Speech.

Trezise, Frederick W., C.E., M.S., Engineering; Associate Dean of Engineering.

Vest, Eugene B., Ph.D., English; Head of the Division of Humanities.

ASSOCIATE PROFESSORS

Bachrach, Joseph, Ph.D., Physical Sciences.

Barton, Helen M., Ed.D., Physical Education for Women; Head of the Department of Physical Education for Women.

Coe, Edward H., C.E., Civil Engineering.

Crumpacker, Major Daniel L., B.S., Military Science and Tactics.

DeFilipps, Anthony J., B.S., Architecture.

Eells, Kenneth W., Ph.D., Psychology; Assistant Director Test Services; Counseling Service.

Gillett, Clarence H., Ph.D., Economics.

Hartley, Miles C., Ph.D., Mathematics (On leave, 2nd semester 1958-59)

Heiliger, Edward M., B.S., in L.S., M.A., Library Science; Librarian.

Hunt, Charles K., Ph.D., Physical Sciences.

Jones, Stanley L., Ph.D., History.

Kabbes, S. Madonna, M.B.A., C.P.A., Accountancy.

Karpinski, Robert W., D.ès S., Physical Sciences. (On leave, 2nd semester 1958-59)

Klehr, Harold, Ph.D., Psychology; Assistant Director, Counseling Services; Counselor, Student Counseling Service.

Kostka, Helen M., M.D., Hygiene.

Kozacka, Joseph S., M.S., Mechanical Engineering *emeritus.*

Madison, Kenneth M., Ph.D., Biological Sciences.

McNeil, Edward B., Ph.D., Physics.

McNee, John D., Jr., A.M., Art.

Mikolajczyk, Henry L., A.M., Architecture; Associate Architect.

Morgenthaler, George W., Ph.D., Mathematics, Head of Division of Mathematics.

Morris, Daniel J., Ph.D., Philosophy.

Nicholson, Robert L., Ph.D., History.

Perkins, Roy B., M.S., Mechanical Engineering; Head of the Department of Engineering Shop Laboratories.

Pickett, Arthur D., Ph.D., Biological Sciences.

Price, Rupert M., M.S., Physics; Assistant Dean of Engineering.

Radice, Canio, M.A., Art.

Reid, H. Gordon, M.D., Hygiene.

Richardson, John F., M.A., Art.

Ricks, Victor E., Ph.D., Education; Teacher Education Advisor.

Rouffa, Albert S., Ph.D., Biological Sciences.

Sanchez, Jose, Ph.D., Foreign Languages.

Sangster, William, Ph.D., Biological Sciences.

Schneider, Albert J., M.B.A., C.P.A., Accountancy.

Schroeder, Roy W., Foundry and Pattern Design.

Schuyler, William M., Ph.D., Foreign Languages. (On leave, 2nd semester 1958-59)
Shank, Max C., Ph.D., Biological Sciences; Chairman of the Division of Biological Sciences.
Shapiro, Samuel E., B.S., General Engineering.
Shopen, Kenneth, A.B., Art.
Skadeland, Harold M., M.A., Physics.
Vardaman, Hazel C., Ph.D., Foreign Languages.
Walley, John E., Architecture.
Walraven, H. Dale, M.A., General Engineering.
Willner, Ernest S., Ph.D., Foreign Languages.

ASSISTANT PROFESSORS

Anderson, William R., M.C., Physics.
Andrews, Daniel K., Ph.D., Accountancy.
Baer, Jean H., Ph.D., Education; Counselor, Student Counseling Service.
Ballard, Ruth M., Ph.D., Mathematics.
Berman, Louis A., Ph.D., Psychology, Counselor, Student Counseling Service.
Berrafato, Peter R., M.S., Physical Education for Men; Director of Intramural Sports.
Bess, Leon, Ph.D., Physics.
Bill, Shirley A., Ph.D., History.
Blair, Leon N., B.S., General Engineering.
Blum, Irving D., Ph.D., English.
Burr, Edward E., B.F.A., Art.
Chambers, Capt. Robert M., B.S., Military Science and Tactics.
Chandler, Louis, Ph.D., Physics.
Colby, Mary M., Ph.D., Geography.
Colburn, Irving W., B.A., Architecture.
Corley, Robert E., Ph.D., Sociology.
Cramer, Glenn E., B.S., General Engineering.
Curtis, Herbert J., Ph.D., Mathematics.
Dembski, Marion V., M.A., General Engineering.
DeYoung, Charles D., M.A in L.S., M.S., Library Science; Circulation Librarian.
Dinkines, Flora, Ph.D., Mathematics.
Elbinger, Rebecca L., Ph.D., Physical Sciences.
Feinstein, Irwin K., Ph.D., Mathematics.
Fissinger, Edwin R., M. Mus., Music.
Fordham, Sheldon L., M.S., Physical Education for Men; Track & Cross Country Coach.

Frommherz, Carl J., A.B., B.S. in L.S., Library Science; Catalog Librarian.

Fuller, John B., Ph.D., Foreign Languages *emeritus*

Gedvilas, Leo L., M.S., Physical Education for Men; Assistant Basketball Coach.

Glassman, Sidney F., Ph.D., Biological Sciences.

Goodman, Gordon L., Ph.D., History.

Ginzel, Roland F., M.F.A., Art.

Gum, Wanda N., Ed.D., Social Sciences, *emeritus.*

Hartoch, Arnold J., Ph.D., Foreign Languages.

Hilker, Gloria, M.D., Hygiene.

Holladay, Dee Mette, A.B., General Engineering.

Howard, Allen H., Ph.D., Psychology.

Jackman, Willis C., M.A., English; Assistant Dean of Liberal Arts and Sciences.

Johnson, Falk S., Ph.D., English.

Johnson, Herman J., M.S., Physics.

Johnson, John C., Ph.D., English.

Jordan, Moreen C., Ph.D., English.

Jung, Allen F., Ph.D., Economics. (On leave 1958-59)

Karanikas, Alexander, Ph.D., English.

Kauf, Robert, Ph.D., Foreign Languages.

Kenny, Anna W., Ph.D., English.

Klapperich, Alfred J., B.S., Electrical Engineering.

Klaas, Rosalind A., Ph.D., Physical Sciences.

Knudson, Edward C., M.B.A., Economics.

Kogan, Bernard R., Ph.D., English.

Kohler, Richard C., Ed. D., General Engineering.

Kristufek, Charles J., M.S., Physical Education for Men; Assistant to the Director of Athletics; Swimming & Tennis Coach.

Lein, Marie E., Ph.D., Foreign Languages.

Leonhard, Zelma B., Ph.D., English.

Lipkin, Lawrence, M.B.A., C.P.A., Accountancy.

Little, Ellis B., Ed.D., Biological Sciences; Assistant Dean of Liberal Arts and Sciences.

Livermore, Ogden, M.A., Physics.

Madenberg, Fred, M.D., Hygiene.

Mansfield, J. Victor, Ph.D., Physical Sciences.

Marsh, John O., Jr., Ph.D., Foreign Languages.

Masterton, Don A., M.S., Architecture.

Miller, Lester H., Jr., Physical Education for Men; Baseball Coach.

Moraine, Fischel E., Dipl. Inq., Physics.

Minkler, Marcus W., M.S., Physics.

Mueller, Hans J., Ph.D., Physical Sciences.
Murphy, Kenneth H., M.S., Mathematics.
Nicholas, Constance, Ph.D., English.
Nickle, Robert W., B.S., Art.
Pappademos, John N., M.A., Physics.
Pennisi, Louis L., Ph.D., Mathematics.
Pitt, Carl A., Ph.D., Speech.
Rakove, Milton L., Ph.D., Political Science.
Rayson, Glendon E., M.D., Hygiene.
Rapp, Marie A., A.B. in L.S., Library Science; Reference Librarian.
Rathbun, Rowland, M.S., Architecture.
Rheumer, George A., Ph.D., Geography.
Rietz, Edward G., Ph.D., Physical Sciences.
Royster, Richard S., M.A., General Engineering.
Runyan, Harry J., Ph.D., English.
Schiller, Andrew, Ph.D., English.
Schrage, Samuel, Ph.D., Physical Sciences.
Schroeder, Fred W., M.S., General Engineering.
Schultheiss, Louis A., M.A., Serials-Acquisition Librarian.
Setton, Henry A., B.S., General Engineering.
Shaw, Fayette B., Ph.D., Economics.
Shomay, David, Ph.D., Biological Sciences.
Silkett, Albert F., A.B., Physics.
Stronks, James B., Ph.D., English.
Unfer, Louis, Ph.D., History.
Weiss, Samuel A., Ph.D., English.
Weissman, Herman B., Ph.D., Physics.
Weldon, John W., Ph.D., Physical Sciences.
White, Lester D., Architecture.
Wiesinger, Frederick P., A.E., Mechanical Engineering.
Wright, Elizabeth V., Ph.D., English.
*Yokoyama, Katsuyuki, Ph.D., Biological Sciences.
Zaccaria, Lucy C., Ph.D., Psychology, Counselor, Student Counseling Service.

INSTRUCTORS

Alberti, Furio, M.S., Mathematics.
Armold, Jack D., M.A., Speech.
Atwood, Norman R., M.A., English.
Berglund, Winifred V., M.A., Mathematics.
Bolton, Charles D., M.A., Sociology.
Bond, James A., M.A., Biological Sciences.
Braunfeld, Johanna, M.A., Foreign Languages.

*First Semester Only

Caldario, Edward J., B.S., General Engineering.
Carbonaro, Lynn M., M.S., Physical Sciences.
Carlson, Kathryn Q., M.A., English.
Cassell, Robert L., M.A., English.
Casten, Sabine H., M.S., Physical Sciences.
†Chapp, Donald F., M.S., Biological Sciences.
Charkovsky, Willis, M. Mus., Music.
**Claar, Catherine H., M.A., Biological Sciences.
Clampitt, Robert E., Sgt. First Class; Military Science and Tactics.
Cowin, John W., M.A., Physical Sciences.
Cox, F. Gaylord, M.A., English.
Crawley, Derek F., M.A., English.
Creaser, James W., M.A., Pschology; Counselor, Student Counseling Service.
Crews, Janice M., A.M., Speech.
DeFotis, William, B.S., General Engineering.
Delfs, Harry J., M.S., Physical Sciences.
DeMar, Robert E., A.B., Physical Sciences.
Dunne, William J., M.B.A., Economics; Assistant Dean of Commerce and Business Administration.
Farag, Shafeek, M.A., Physical Sciences.
Ferrara, Salvatore V., M.A., Economics.
Finney, Mildred I., A.M., Geography.
*Freyer, Warren R., A.M., English.
Gallagher, Mary T., M.A., English.
Geldard, Winifred B., M.A., Economics.
Gordon, Louis I., M.S., Mathematics.
Gottlieb, Anatol, T.Sc.D., Physical Sciences.
Goulson, Frances M., M.T.A., Speech.
Griest, Guinevere L., A.M., English.
Hart, Jeannette Z., M.S., Physical Sciences.
Hasan, Mazhar, M.S., Physics.
Hedberg, Donald D., B.A., Physical Sciences.
Hedish, Norman D., M.A., Accountancy.
Heftel, Daniel L., M.A., Psychology, Counselor, Student Counseling Service.
Hegie, Lucy S., M.A., English.
Herzog, Elaine N. F., M.A., Physical Sciences.
Hill, Roger G., B.A., Mathematics.
Hipple, Eleanor K., A.M., English.
Hoskins, Conde R., M.A., Speech.

†Deceased 12/20/58
*First Semester Only **Second Semester Only

Hovde, Helen J., M.A., Speech.
Jones, David R., M/Sgt., Military Science and Tactics.
Kaucki, Eugene F., M.A., Economics.
Kerwick, Marion S., M.A., English.
Kester, Martha, A.B., M.S. in L.S., Library Science; Assistant Catalog Librarian.
Kirstein, Laurette A., M.A., English; Counselor, Student Counseling Service.
Kundrat, Theodore V., M.A., Speech.
Kurs, Louis N., M.S., Physical Sciences.
Kuzmanic, Betty J., M.Ed., Mathematics.
Lariviere, Rose, M.A., Mathematics.
Larson, Carl M., M.B.A., Economics.
Levinson, Hilliard L., M.A., Psychology; Counselor, Student Counseling Service.
Lindberg, Richard C., B.S., in C.E., LL.B., Theoretical and Applied Mechanics.
Linn, Julia B., M.S., Mathematics.
Lipman, Vivian C., M.A., Psychology.
Love, W. Nell, A.M., English.
Lumley, Jeanette S., M.A., Mathematics.
Mackin, John H., A.M., English.
Malinosky, Alfonse T., M.B.A., C.P.A., Accountancy.
Mann, William C., M.S., Physical Education for Men; Wrestling Coach
McNamara, Eugene J., M.A., English.
Merten, Horace G., M.A., English *emeritus*.
Meyer, John H., A.M., Foreign Languages.
Miller, Irving M., M.A., English.
Miller, Oscar, M.A., Economics.
Miller, Robert L., M.S., Physical Sciences; Counselor, Student Counseling Service.
Miller, Sonia, Ph.D., Instructor in English.
Montcalm, Benedict W., M.A., Physical Education for Men; Gymnastic Coach.
Moraine, Fishel E., Dipl. Ing., Electrical Engineering.
Morici, Anthony R., M.A., Accountancy.
Mosillo, Francis A., B.S., General Engineering.
Munro, David A., M.A., English.
Murphy, Charles E., M.A., Economics.
Newell, John T., M.S., Biological Sciences.
Nolan, Grace M., M.A., Mathematics.
Oleksy, Margaret H., M.A., English.
Olsen, Charles E., B.S., Mathematics.

Ondrak, Thomas B., M.S., Mathematics.
Pabarcius, Algis, M.S., Civil Engineering.
Page, Robert R., A.M., Philosophy.
Patlogan, Sylvia, M.A., Foreign Languages.
Perez, Isidro L., M.D., Hygiene.
Perry, Clarence J., M.Ed., Physical Sciences.
Pesavento, Wilma, B.S., Physical Education for Women.
Potempa, Sylvester J., M.S., Physical Sciences.
Presley, Halina J., M.S., Biological Sciences.
Rader, Richard R., M.A., Physical Education for Men; Golf Coach; Basketball Coach.
Raub, Lucille J., M.A., Asst. Serials-Acquistion Librarian.
Rees, Candida K., M.S., Mathematics.
Rigler, Matthew L., M.A., Speech; Head of the Speech Improvement Laboratory.
Rosman, Livia R., M.A., Foreign Languages.
Rudin, Cecilia M., M.A., English.
Sackheim, George I., M.S., Physical Sciences.
Sachs, Lester M., M.S., Physics.
Savoy, Michael G., M.S., Physical Sciences.
Scholomiti, Nicholas C., A.M., Mathematics.
Scudder, Charles L., M.S., Biological Sciences
Seabright, Frances K., M.S., Physical Sciences.
Sears, Helen W., M.A., Mathematics.
Seltzer, Arthur O., A.M., Economics.
Sheard, Kevin, M.B.A., Economics.
Sidney, Mary C., A.M., English.
Sjoblom, Laurence R., B.S., Mathematics.
Skogen, Clara S., M.A., Foreign Languages.
Spies, Harold W., M.D., Hygiene.
Spirakis, Charles N., A.M., Biological Sciences.
Stableford, Nancy, MFA, Art.
Stanley, William J., B.S., Mechanical Engineering.
Star, Morris, M.A., English.
Strnad, George J., B.S., Physical Education for Men; Assistant Football Coach.
Sullivan, Bernadette M., A.B. in L.S., Library Science; Assistant Reference Librarian.
Teichmann, Elizabeth, Ph.D., Foreign Languages.
Timmis, Beatrice S., M.A., English.
Tort, Ferdina J., M.A., Foreign Languages.
Tsao, Peter, M.S., Physics.
Tyroler, Robert L., S.M., Psychology.

Vedral, Rose L., M.A., Mathematics.
Versen, Walter G., Ed.M., Physical Education for Men; Football Coach.
Viviano, Joseph W., M.S. in L.S., Library Science; Fine Arts Librarian.
Warren, Charles P., M.A., Sociology.
Wilbur, James W., M.A., Physics.
Wiley, Rosemary F., A.M., Mathematics.
Willett, Maurita F., Ph.D., English.
Ziomek, Leo F., M.S., Mathematics.
Zygmund, Irena, M.A., Mathematics.

ASSISTANTS

Anderson, Donald R., B.S., Physical Education for Men; Assistant Wrestling Coach.
Anzalone, Charlene B., B.S., Physical Education for Women.
**Applegate, Shelton P., M.S., Physical Sciences.
Bouc, Charles A., B.A., General Engineering.
Canino, Anthony, B.S., Physical Education for Men, Asst. Swimming Coach.
Claypoole, Donna Jean, B.A., Physical Education for Women.
Crabb, Robert L., B.A., Economics.
Dafler, James R., B.A., Physical Sciences.
Davis, Russell E., M.A., English.
Duff, Donna J., M.S. in L.S., Library Science; Asst. Reference Librarian.
Friend, James, M.A., English.
Glasel, Jay A., B.S., Physical Sciences.
Henderleiter, William M., A.M., Mathematics.
Johnson, Robert E., B.A., Physical Sciences.
Krishna, Kumar, M.S., Biological Sciences.
**Lallas, Stanley P., M.A., Foreign Languages.
Lothian, Thomas A., B.S., Physical Sciences.
Lutton, William R., M.A., Foreign Languages.
Nemoto, Harold H., B.S., Physical Education for Men; Assistant Football Coach; Assistant Baseball Coach.
**McWhinnie, Dolores I., M.S., Biological Sciences.
Mertes, Robert A., M.S., Mathematics.
*Oberfeld, Beverly, M.A., English.
**Perelmuter, Samuel, M.S., Biological Sciences.
Rawson, Robert O., M.S., Biological Sciences.
Springer, Melvin J., Physical Education for Men; Soccer Coach; Assistant Track Coach.
**Sundell, Robert A., M.S., Biological Sciences.
Thomas, Ruth G., B.S., Physical Education for Women.

*First Semester Only. **Second Semester Only

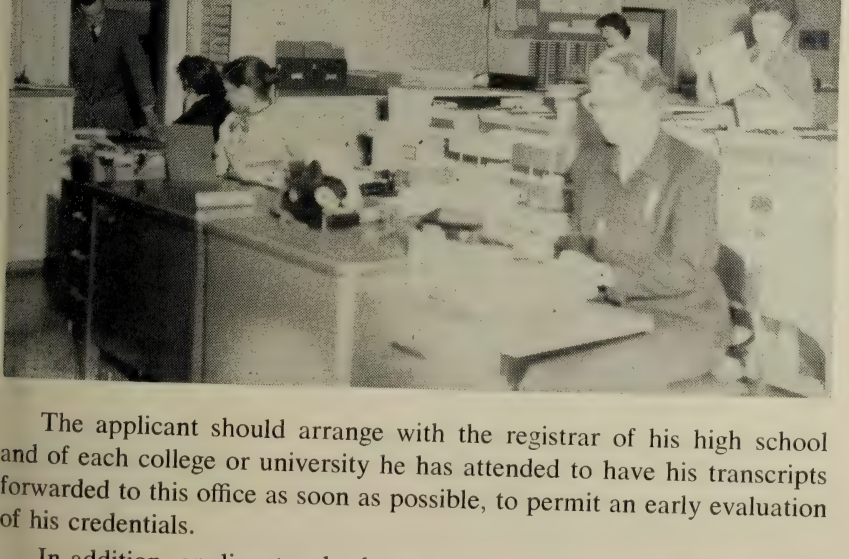
Admission

THERE ARE SEVEN STEPS

In order to become a student at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

1. Obtain an application for admission. The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.

2. Provide the Office of Admissions and Records with an official transcript of his record in high school and his record at each college or institution of higher education which he has attended since leaving high school. The applicant must assume responsibility for having these records forwarded directly to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois, by an official of the school concerned.



The applicant should arrange with the registrar of his high school and of each college or university he has attended to have his transcripts forwarded to this office as soon as possible, to permit an early evaluation of his credentials.

In addition, applicants who have been on active duty in the Armed Forces must also submit photo copies of their service separation papers.

High school seniors may apply during their eighth semester. They may be issued a permit to enter, subject to their successful completion of their eighth semester, based on their work during the first seven

semesters, their rank in class after seven semesters, the courses in progress their eighth semester, and the probable date of their graduation.

3. **Decide which college and curriculum** in the University he desires to enter. The Chicago Undergraduate Division of the University at scheduled times throughout the year offers Vocation and Educational Aptitude Examinations which are followed by professional counseling. This counseling may assist students who are uncertain as to which college or curriculum will best serve their needs.

These examinations and counseling interviews are offered several months in advance of each orientation period so that students may have ample time for thoughtful planning. Appointment requests for these examinations may be made through the Office of Admissions and Records. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

New freshmen who have not already taken these guidance examinations are required to complete them during the orientation period. Exception: Students ranking in the lowest quarter of their class do not take these examinations, but follow the procedure listed in Paragraph V, C, page 31.

4. **Complete and return** the application blank.

Physical Education Majors: Make appointment for interview with the Associate Dean of the College of Physical Education.

5. **Wait for action to be taken** on your application. When an applicant's case is complete, that is, after his completed application blank and all necessary supporting records and transcripts have been received, the case will be evaluated. If the application is approved, the applicant will be sent a permit to enter, an appointment for such placement and guidance tests as may be necessary, an appointment for a physical examination, and information as to the date and place of his college meeting, his meeting with the Dean of Students and Dean of Women, and of his registration. If the application is not approved, the Office of Admissions and Records will send the applicant written notice of this action, explain his deficiencies, and make suggestions as to the manner in which he may remove them and qualify for admission.

6. **Report to Navy Pier** for orientation meeting, physical examination, college meeting, and tests listed in paragraph 5, above, on the dates specified in the notice which the applicant will receive if admitted.

7. **Register,** pay tuition and fees, and start classes.

ADMISSION REQUIREMENTS

The admission requirements to the University of Illinois are divided into two groups:

I General University Admission Requirements, which apply to every student entering the University of Illinois; and

II Specific Subject Requirements for admission to a particular college and curriculum within the University, which apply to every student entering that college and curriculum.

Since each student entering the University of Illinois must enroll in a particular college and curriculum within the University, EACH STUDENT MUST MEET BOTH SETS OF ADMISSION REQUIREMENTS, i.e., the General University Admission Requirements and the Specific Subject Requirements for the college and curriculum of his choice.

I. General University Admission Requirements

These requirements must be met by all applicants. For definition of the terms used and description of the subjects acceptable in satisfaction of the requirements, please refer to Paragraph III, pages 27-28.

A. Graduation from an accredited high school. Students ranking scholastically in the fourth quarter of their high school class, see Paragraph V, C, page 31.

B. An applicant must be at least sixteen years of age. This requirement may be waived for a student fifteen years of age on recommendation of the dean of the college concerned, provided the student resides with his parents or guardian, or someone selected by them while attending the University.

C. Fifteen units of acceptable secondary school work distributed as follows:

1. A minimum of nine units of work in the academic fields (English, foreign languages, history and social studies, mathematics, and sciences) including:

a. At least three units of English.

b. At least two majors (one of which must be English) and one minor selected from the list of acceptable majors and minors in Paragraph III, D. (This requirement, except as it applies to English, is waived for applicants who rank scholastically in the upper half of their high school graduating class.)

2. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet the standards for accrediting.

I. College Subject Requirements: See table on page 26.

Required Subjects for Specific Colleges and Curricula

IN ADDITION to the General University Admission Requirements, page 25

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION All Fields (Accountancy; Commerce and Law; Commercial Teaching; Economics of Government and Business, Public Utilities, and Transportation; Economic History; Economic Theory; Finance; General Economics; Industrial Administration; Insurance; Labor Economics; Management; Marketing; Personnel Management; Secretarial Training; Statistical Economics; Urban Land Economics.)	Algebra, 1 unit Geometry, 1 unit
COLLEGE OF ENGINEERING All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Industrial, Mechanical, Metallurgical, Mining, Engineering Mechanics, Engineering Physics, Sanitary.) For combined Engineering-Liberal Arts curriculum, see under Liberal Arts.	Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Paragraph III, D, 3, Page 27)
Curricula in Architecture Design Option (for B.S. Degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering)	Algebra, 1½ units Geometry, 1 unit (See Paragraph III, D, 3, Page 27)
Curricula in Art (Advertising Design, Industrial Design, Painting, History of Art, Art Education)	Language 2 units[1] (See Paragraph III, D, 2, Page 27)
COLLEGE OF LIBERAL ARTS AND SCIENCES General Curriculum with majors in Bacteriology, Botany, Economics, English, French, Geography, Geology, German, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology. Curricula preparatory to Journalism and Law Teacher Education Curricula (not requiring Chemistry, Physics, or Mathematics) Occupational Therapy Curriculum and Pre-professional Curriculum in Nursing (See also Paragraph V, B, 1, c, Page 30)	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Beginning with admission to the fall semester 1961, one year of elementary algebra and one year of geometry will also be required.
General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology Special Curricula preparatory to Dentistry, Medicine, Veterinary Medicine (See also Paragraph V, B, 1, a, Page 30) Teacher Education Curricula requiring Chemistry, Physics, or Mathematics	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Algebra, 1 unit Geometry, 1 unit
Special Curriculum in Chemistry	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Algebra, 1½ units Geometry, 1 unit (See Paragraph III, D, 3, Page 27)
Special Curricula in Chemical Engineering, Combined Engineering-Liberal Arts, and in Physics (See also Paragraph V, B, 1, b, Page 30)	Language, 2 units[1] (See Paragraph III, D, 2, Page 27) Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Paragraph III, D, 3, Page 27)
Curriculum in Elementary Education	Algebra 1 unit Geometry, 1 unit Above subjects plus written approval of the Teacher Education Adviser
Forestry Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children (See also Paragraph V, B, 1, d, Page 30)	Written approval of the Associate Dean of Physical Education
COLLEGE OF PHYSICAL EDUCATION All curricula (Physical Education for Men, Physical Education for Women, Dance, Health Education, Recreation)	

[1]Foreign language admission requirement is waived for students who rank in the upper half of their high school graduating class.

III. Definitions

A. *Unit.* A unit is the equivalent of two high school credits, i.e., the value given to a course of study covering two semesters and including not less than the equivalent of 120 sixty-minute periods of class-room work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

B. *Major.* A major consists of a three-year sequence in one academic field.

C. *Minor.* A minor consists of a two-year sequence in one academic field.

The University's definition of a major and a minor may not be the same as that in use in your high school.

D. *Acceptable Majors and Minors.* The required majors and minors (See par. I, C, 1. b page 25) must be selected from the following:

1. *English.* In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

2. *Foreign Language.* Three units in one language constitute a major. Two units in one language constitute a minor. The acceptable foreign languages are German, French, Spanish, Italian, Latin, and Greek. Less than one unit in a language is not acceptable for admission.

3. *Mathematics.* Only courses in algebra, plane geometry and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.)

In the College of Engineering and in the chemistry, chemical engineering, and physics curricula of the College of Liberal Arts and Sciences, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that deficiencies in ad-

vanced mathematics be removed during their first year of residence. However, this will probably extend the time required for a degree.

Students who do not present the three and one-half units in mathematics as specified may be admitted to full standing by passing a proficiency examination at the University which will indicate their preparation is adequate for entrance into analytical geometry.

4. *Science.* Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. The two units required for a minor must include at least one unit of physics, chemistry, botany, or zoology. Biology may be offered in place of botany or zoology.

5. *Social Studies.* This field is divided into two areas:

a. History, e.g., United States, modern, ancient, medieval, etc. Three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.

b. General Social Studies, e.g., civics, economics, and sociology.

IV. Transfer Student Admission Requirements

A person who has attended another college or university of recognized standing is considered for admission to the University of Illinois on presenting: (1) a transcript of his record in each such college or university attended, and (2) a transcript of his secondary school work. To be eligible for admission, the student must meet the following requirements:

A. All requirements listed in paragraphs I and II, pages 25 and 26 *Plus:*

B. Scholastic Requirements:

1. Students who have completed (with passing or failing grades) forty or fewer semester hours of work in a recognized college or university, must have:

a. A cumulative average of at least 3.0 in terms of the University of Illinois grading system. (See p. 55.)

2. Students who have completed (with passing or failing grades) more than forty semester hours of work in a recognized college or university must have:

a. A cumulative average of at least 3.0 (C) in terms of the

University of Illinois grading system on *all* college work (see "Grading System," page 55),

b. *Plus* a combined average of at least 3.0 for the last two terms of collegiate study.

c. *Plus* an average of at least 3.0 in the last term.

C. Conduct Requirements: Certification of honorable dismissal from each college or university attended.

D. Exceptions:

1. To paragraph IV, A, above:

An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the admission requirements listed in paragraph I may be admitted if he presents at least thirty semester hours of credit in transfer with a 3.0 average (C) and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.

2. To the scholastic requirements:

Students who do not meet the scholastic requirements listed in paragraph IV, B, may petition for admission on scholastic probation provided they meet the following minimum requirements:

a. Students with forty or fewer hours of college work: (This exception does NOT apply to non-residents of the State of Illinois or to applicants for the College of Engineering.)

(1) Less than a 3.0 average but *more than* a 2.50 average.

b. Students with more than forty semester hours of college work:

(1) Cumulative scholastic average of at least 3.0,

(2) Plus a combined average of at least 3.0 for the last two terms,

(3) *But* less than a 3.0 average in the last term.

(Transfer students whose scholastic record is lower than that described in paragraphs IV, D, 2a, and 2b are not eligible for admission.)

3. To the Conduct Requirement:

A student on conduct probation at another accredited college or university or one who has been dropped from such an institution for disciplinary reasons may petition for admission through the University Senate Committee on Student Discipline.

V. Special Scholastic Admission Requirements (in addition to requirements on pages 25 and 26).

A. For Non-Resident Students:

Applicants who are not residents of the State of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in paragraphs I and II, pages 25-26, and further provided that:

1. As high school graduates they ranked scholastically in the upper half of their class on graduation.

2. As transfer students with forty or less semester hours they present a collegiate scholastic average of at least 3.0 (C) in terms of the University of Illinois grading system.

3. As transfer students with more than forty hours, see Paragraph IV, B, 1.

B. For Certain Colleges and Curricula:

1. Curriculum	*Scholastic Requirements*
a. Premedical, Predental, Preveterinary Medicine,	
(1) High school graduates	Rank in upper half of graduating class.
(2) Transfer students	3.5 collegiate average.
b. Physics Curriculum (LAS)	
(1) High School graduates	Rank in upper half of graduating class.
c. Occupational Therapy (see also para. 3 below) Preprofessional Curriculum in Nursing	
(1) High school graduates	Rank in upper half of graduating class.
(2) Transfer students	Collegiate average of 3.0.
d. Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children.	
(1) High school graduates	Rank in top quarter of graduating class.
(2) Transfer students	3.5 collegiate average.

2. *College of Engineering* (Except curricula in Architecture, Architectural Engineering, and Art). Transfer students must present at least a "C" average. Transfer students with less than a "C" average will *not* be admitted.
3. *Occupational Therapy*. Applicants for this program must:
   a. Be less than thirty years of age.
   b. Pass a special health examination given by the University Health Service.
   c. Be recommended by the Director of Occupational Therapy. (The Director is located in Room W-425, Research and Educational Hospitals, 840 S. Wood Street, Chicago 12, Illinois.)

C. For Students Ranking in the Lowest Quarter Scholastically in High School.

In order to assist these students in making a wise decision about whether to enter the University or some other post-high school educational institution, or perhaps go directly into an occupation, the University conducts a special testing and interviewing program. Inasmuch as this program is rather time consuming it has been necessary to set application deadlines for this group of students. Therefore, in order to be eligible to register in a particular session, such students should adhere closely to the following procedure:

1. Submit admission application and all required credentials by deadline, as listed below:
   a. Applicants for the Fall semester 1959: July 27, 1959
   b. Applicants for the Spring semester 1960: December 14, 1959
   c. Applicants for the Summer session 1960: April 25, 1960
2. Complete the special testing program in accordance with the appointment which will be sent to them after the Admissions Office has reviewed their records.
3. Complete the assessment interview which will be scheduled after testing.
4. Notify the Admissions Office *in writing* (after completing the interview) to confirm or cancel the admission application. If the admission application is confirmed, admission on *scholastic probation* will be granted.

VI. Admission By Examination

Applicants who do not meet the requirements for admission listed above may qualify for admission by passing one or more examinations

as outlined below. Exception: This section does not apply to applicants who are deficient in the scholastic requirements outlined in paragraphs IV and V, pages 28-30. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.

A. Entrance Examinations

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category:

1. Graduates of Unaccredited High Schools.

   a. Applicants who rank in the top 25 per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

   b. Applicants who are graduates of unaccredited secondary schools and rank below the top 25 per cent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and specific college admission requirements.

2. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of *at least* four units of work in subjects to be designated by the University.

3. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.

4. Applicants who do not meet University admission requirements with respect to total units of credit, total academic units, major and minor, or subjects required for admission to the college of the applicants' choice may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient. These entrance examinations are given three times a year, usually in September, January, and June. Applications to take these examinations must be filed in advance in the Office of Admissions and Records. However, only those students who are applying for admission to the University are permitted to write these examinations.

B. General Educational Development Tests

Veterans of active duty with the United States Armed Forces or with the United States Maritime Service and adult non-veterans (non-veterans twenty-one years of age or older) who are not graduates of accredited high schools may qualify for admission to the University by passing the United States Armed Forces Institute General Educational Development Tests (High School level) under the following conditions:

1. Applicants seeking admission to the *College of Liberal Arts and Sciences* may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. Applicants whose G.E.D. scores are passing but below minimum required for upper-half classification scholastically may qualify if they present high school credit from accredited sources in two successive years of an acceptable foreign language. Applicants desiring to enter specialized curricula in the College of Liberal Arts and Sciences for which mathematics is required (see page 26) may not qualify for such curricula by G.E.D. tests alone, but must present credit from accredited sources in elementary algebra and plane geometry.
2. Applicants seeking admission to the *College of Commerce and Business Administration* or the *College of Engineering* may qualify by passing the G.E.D. tests and presenting credit from accredited sources in the required mathematics.
3. Applicants seeking admission to the *College of Physical Education* may qualify by passing the G.E.D. tests and securing the approval of the Associate Dean of Physical Education.

The University does not grant any credit for college level General Educational Development Tests.

VII. Special Admissions

A student who is not eligible for admission on one of the plans described above may be admitted, with the approval of the Dean of Admissions and Records and the Dean of the College he wishes to enter, providing he submits evidence which clearly establishes his qualifications to do satisfactory work in the curriculum in which he wishes to enroll.

VIII. The Advanced Placement Program

The Advanced Placement Program administered by the College Entrance Examination Board is a new program designed for the abler high school student who is about to enter college and wishes to demonstrate his readiness for courses more advanced than those most frequently

studied in the freshman year. This work is offered in certain participating high schools in some or all of the following subjects: Latin, French, German, Spanish, English Composition, Literature, American History, European History, Biology, Chemistry, Mathematics, and Physics. There is an examination in each subject, administered by Educational Testing Service, which is designed to measure the competence of the student in terms of the point he should begin his college study in that particular subject.

The examinations are national examinations and are scored by school and college teachers on the following basis:

Grade	*Meaning*
5	High honors
4	Honors
3	Creditable
2	Pass
1	Fail

The University of Illinois is prepared to honor the advanced preparation defined, examined, and certified by the College Entrance Examination Board's Advanced Placement Program as indicated below:

I. In the following subjects grades of three, four, or five on the College Board's Advanced Placement Examination assure candidates of advanced placement at the University of Illinois and such college credit as the University department concerned shall determine:

American History	German
Chemistry	Latin (Latin 5 examinations)
European History	Mathematics
French	Spanish

II. In English literature, a grade of four or five on the College Board's Advanced Placement Examination assures candidates of advanced placement and appropriate college credit in the subject.

III. In English Composition, advanced placement is available only through the University of Illinois Rhetoric Placement Examination, administered by the English Department of the University of Illinois. While advanced placement would not be automatic, the University of Illinois does strongly encourage advanced preparation in this important discipline.

IV. In Physics, advanced placement is available only through proficiency examinations administered by the Physics Department of the University of Illinois. The department favors giving proficiency examinations in its elementary courses to students

who make grades of three, four or five on the Advanced Placement Examination.

V. In Biology, advanced placement is available only after each individual case has been considered by the University of Illinois Departments most directly concerned.

IX. Transferring To Urbana

Students at this division who intend to transfer to Urbana may do so by securing a release from the dean of their college on this campus. This release is then presented to the Recorder, Room 15. Note: Architecture and Architectural Engineering students may transfer to Urbana only when they have reached the point in their curricula when they cannot obtain a full program of studies on this campus.

X. Tuition and Fees

A. Semester Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in nine semester hours or more pay tuition of $75.00

Nonresidents registering in nine semester hours or more pay tuition of 250.00

Students taking eight semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in six semester hours or more pay each semester, as insurance for hospital and medical service, a fee of 7.00

(A student who presents evidence of participation in any other group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first ten days of instruction, for a refund of this fee. Refunds are not given on any other basis, but the insurance remains in effect for the entire semester instead.)

Laboratory, Library, and Supply Fee. All students registering in nine semester hours or more pay a laboratory, library, and supply fee of 11.00

Students registering for less than nine hours pay 5.50

Student Activities Fee. All students registering in six semester hours or more pay a student activities fee of 8.00

Deposits. Each student must make a deposit of $5 at the time of his first registration at this division, regardless of the number of hours carried. An additional deposit of $10 ($15 in all) is required of students withdrawing military equipment. Charge-

able against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory, military, and other equipment, etc. Any balance on deposit will be returned to the student in case he officially withdraws from the University. This refund of deposit will be made 60-days after the close of registration for the next regular semester following the student's withdrawal. The $10 military deposit will be returned to the student, upon receipt of the military equipment, at the end of each school year.

Identification Card. Each student, on payment of tuition and fees each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment. A fifty cent fee is charged for the replacement of lost or destroyed identification cards.

B. Summer Session Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in five semester hours or more pay tuition of $37.50

Nonresidents registering in five semester hours or more pay tuition of 125.00

Students taking four semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in four semester hours or more pay, as insurance for hospital and medical service, a fee of 3.50

(A student who presents evidence of participation in any other group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first five days of instruction, for a refund of this fee. Refunds are not given on any other basis, but the insurance remains in effect during the entire eight weeks of the summer session instead.)

Laboratory, Library, and Supply Fee. All students registering in five semester hours or more pay a laboratory, library, and supply fee of 5.50

Students taking less than this amount of instruction pay $2.75 for the summer session.

Student Activities Fee. All students registering in four semester hours or more pay a student activities fee of 4.00

Deposits. See description above.

C. Withdrawing From the University

Students leaving the University before the end of a semester or session must initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student being dropped for poor scholarship at the end of the semester.

D. Refunds of Tuition and Fees

In case a student withdraws from the University during the first ten days of instruction, the total amount of his tuition and fees will be refunded. After ten days and before the middle of the semester, a rebate of one-half the tuition and fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of the tuition and fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week. If a student withdraws from one or more courses thereby reducing his study load to eight or less semester hours in the regular semester, or four or less hours in the summer session, a pro rata refund of tuition and fees will be made according to the rebate schedule, provided that such a reduction of study load occurs during the first ten days of instruction in the regular semester and the first five days of instruction in the summer session.

For refund of the general deposit see section on "Deposits" above. For refund of the Hospital and Medical Service Fee see note on page 35.

E. Miscellaneous Fees

Service Charge for Deferred Fees. Arrangements for deferred fees are made directly with the cashier. A service charge of ten per cent of the amount of fees deferred, but not to exceed $3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded **except** that a minimum service charge of $1 is retained by the University in all cases. The general deposit of $5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.

Change Fee. For every change of program slip issued at the request of the student, the fee is..... $1.00

Transcript Fee. Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record.

For each additional transcript the fee is..... 1.00

Late Registration Fee. Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

Special Examination Fee. For any special examination given in a course which has been failed, the fee is..... 10.00

Fee to Visit Courses. Persons not connected with the University who attend the classes as visitors pay for each course..... 10.00

Persons, visiting courses, withdrawing within ten days after paying their fees, may receive a full rebate of the visitor's fees. No rebate is allowed after this date.

Visitors may not write examinations for credit in courses they have visited.

Duplicate Identification Card Fee ..... .50

XI. Veterans' Information

The Chicago Undergraduate Division has been approved to offer training under the following veterans educational benefits acts: Public Law 346, the World War II G.I. Bill; Public Law 550, the Korean G.I. Bill; and Public Laws 16 and 894, the Vocational Rehabilitation Acts. Questions concerning benefits under these laws may be referred to the Veterans Section, Office of Admissions and Records.

The University of Illinois has established the Office of Veterans' Counselor in the Office of the Dean of Students, Room 313. As a collateral duty, the Dean of Students gives special attention to the particular problems of veterans.

Authorization

To enroll under one of the above benefits at the Chicago Undergraduate Division, an applicant, in addition to applying for admission to this Division, must take the following steps:

Determine the course in which he will register and the highest degree toward which he plans to work. If there is any doubt as to the final vocational objective or the course to follow to reach it, some type of educational and vocational counseling should be received before completing application to the Veteran's Administration.

Make application to the Veterans Administration, 2030 West Taylor Street, Chicago, for the proper training authorization. A copy of service separation papers must accompany this application. Applications should be filed as early as possible, and not later than the first day of classes

The training Certificate received from the Veterans Administration should be brought to the University on the day of registration for classes. It will not be accepted before that time. Certificates received after the beginning of classes should be turned in at once to the Veterans Section, Office of Admissions and Records, Room 15.

Transfers Under the G. I. Bill

Veterans transferring from another school under the G. I. Bill must obtain a notice of interruption from that school (Form 7-1995) and submit it to the Veterans Administration when requesting a supplemental training certificate for this University.

Veterans transferring between divisions of the University of Illinois must follow the above procedure for changing schools.

Choice of Course

Veterans applying for any educational benefits should be extremely cautious in choosing their courses. The veteran may jeopardize his benefits if he fails to do satisfactory work in the original course. If assistance in choosing the correct course is desired, the facilities of the University Student Counseling Service are available at all times (see page 43). The Veterans Administration also will provide free counselling for any veteran.

Special Provisions

The fees listed on page 35 are payable at the time of registration for classes. The Veterans Administration will mail the first allotment check about six weeks after a veteran enters training.

The University of Illinois is required by the Veterans Administration to submit a monthly attendance report for each veteran enrolled under P. L. 550.

Public Laws 16 and 894

Students receiving educational benefits under either of the federal Vocational Rehabilitation Acts should be certain that there is an authorization on file for them at the University by the time they are to register for classes. Early application for training should be filed with the Veterans Administration Training Officer.

Military Scholarship

Any person who served in the armed forces during World War I or any time between September 16, 1940 and the official termination of the present national emergency and received an honorable discharge may qualify for a four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time of entering service.

No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and

Records, Room 15, Window E. The Military Scholarship may not be used during any period when the veteran is receiving financial aid for his education from the federal government.

Credit for Military Service

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science and physical education will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service may be transferred upon the basis of evaluation by the Examiner and Recorder.

XII. Selective Service Deferment

The office of Admissions and Records will supply the required certificates for students who wish to apply for educational deferments under the regulations of the Selective Service System. Application should be made at Window E, Room 15, at the time the student completes his classification questionnaire. Information concerning educational deferments is available from this office.

SCHOLARSHIPS

Several types of scholarships are available to undergraduate students in the University of Illinois. Some of these are the County Scholarships awarded on the basis of a competitive examination administered each April by the County Superintendent of Schools, the State Military Scholarships, the General Assembly Scholarships, and, in addition, a number of scholarships awarded by the University Scholarship Committee each spring for the following school year. All the scholarships offered, and the individual requirements, are listed in an information folder available upon request from the Office of Admissions and Records or from the Office of the Dean of Students and the Dean of Women.

Undergraduate scholarships usually cover tuition charges only. Although some are available only to students in a specific course, the majority may be used in any of the colleges. Students now enrolled may apply for a scholarship for any year; a few scholarships, however, may be awarded only to applicants without college experience. Information regarding scholarships may be obtained from the Office of Admissions and Records, Window E, Room 15, or from the Office of the Dean of Students, and the Dean of Women.

LOAN FUNDS

Loan funds have been established for the benefit of worthy students at the University who are in need of financial aid. These funds are of three general classes: (1) emergency loan funds which must be repaid within the semester or term; (2) long term loan funds, and (3) National Defense Student loan program. Both (2) and (3) may not become payable until the student graduates or leaves school. Most of these funds have special requirements which must be met by applicants.

Application blanks and detailed information regarding loan funds may be obtained from the Office of the Dean of Students and the Dean of Women.

STUDENT EMPLOYMENT

For students who find it necessary to earn a portion of their expenses, there is a Student Employment Service in the Office of the Dean of Students. While this service does not guarantee to find a job for anyone, it does provide information and assistance to deserving students seeking part-time jobs in University offices and in business or industry in the Chicago area. Applications for part-time jobs should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule, at the time of registration, so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity rather than choice.

STUDENT WELFARE SERVICES

The University's interest in the individual student extends beyond the classroom to include the personal adjustment of each student to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling; extracurricular activities, both social and cultural; and advising and instruction in healthful living.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division. Before registration, the student is encouraged to avail himself of the services of the Dean of Admissions, the Dean of Students, the Student Counseling Service, and the dean of his college for information and advice needed to insure wise planning for his college career.

At registration time, an adviser helps the student select and arrange his courses, and a special meeting affords him the opportunity to meet the deans. The deans of the various colleges, the heads of departments and all members of the faculty devote a large part of their time to advising students concerning their classroom work and programs. Stu-

dents are urged to discuss specific educational problems with their instructors, who hold scheduled office hours for conferences with individual students. The problems of student welfare outside the classroom are handled chiefly by the Dean of Admissions, The Dean of Students, the Dean of Women, and the Student Counseling Service.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students is in charge of most matters of student welfare and extracurricular activities. The Dean of Students, the Dean of Men, the Dean of Women, and the Assistant to the Dean of Students are the administrative advisers to whom students may go for information and advice concerning student activities, insurance, loans, employment, personal problems, the interpretation of University regulations, and other matters. The offices of these advisers are open to any student throughout the day, and inquiries from parents and guardians are welcomed. Details concerning the services of the Office of the Dean of Students are outlined in the following sections.

Dean of Students. The Dean of Students is the administrative officer who is primarily responsible for the welfare of the student outside the classroom. He assists students in obtaining financial assistance in the form of a loan, scholarship and/or part-time employment. He is charged with the direction, supervision, and coordination of the University agencies which are active in the guidance of students in extracurricular activities, and he participates directly through his chairmanship of the Administrative Committee on Finance and Audit for Student Organizations, through his duties as secretary of the Undergraduate Division Organizations Fund and his work as financial adviser to student organizations, and through his membership on the Committee on Student Affairs. The Dean of Students also serves as supervisor of student employment, as veterans counselor, as adviser to foreign students, as administrator of the voluntary Hospital and Medical Insurance plan for the faculty and staff, and as supervisor of the compulsory student plan.

Dean of Men. The Office of the Dean of Men is organized for the primary purpose of aiding men students. At the present time, the duties of this office are being performed by the Dean of Students with the help of his Assistant. The work of the Dean of Men includes counseling and advising students on any matters which they may wish to bring to him. The Dean of Men takes an active part in student extracurricular activities. He also serves as adviser to Phi Eta Sigma, national scholastic honorary for first-year men students. All official University requisitions for student organizations, events, and affairs are initiated by the

Dean of Men upon receipt of a written request from the student group concerned.

Dean of Women. The Office of the Dean of Women is primarily concerned with the guidance of women students and with promoting the educational and social opportunities obtained from participation in student activities. The Dean of Women is available for individual and group counseling on any questions the students wish to discuss, such as, personal problems, financial aid — scholarship and loan funds— employment, and extra-curricular activities. Besides being available for daily counseling, the Dean of Women serves as adviser to Alpha Lambda Delta, the National Scholastic Honor Society for freshman women; the Activities Honorary Society; and the University Dance Committee. As Chairman of the Administrative Committee on Social Events, Calendar, and Recreation, the Dean of Women coordinates all social events, assists men and women students in planning and organizing special events by providing and accepting all requests for student social functions for the calendar, assists in planning many All-University functions, and prepares all materials for the Campus Events Calendar. The Dean of Women also acts as liaison with the Housing Division for the students transferring to Urbana. By serving on several University committees, the Dean of Women interprets the needs of the women students to the Administration.

The services of the Dean of Women are available to registered and prospective students.

Assistant to the Dean of Students. The Assistant to the Dean of Students is responsible for handling such duties as may be delegated to him by the Dean of Students. These include the administration of the Student Hospital and Medical Insurance Plan, advice and assistance to all extracurricular activities, approval of room reservations and publicity for student activities and events, and conferences with individual students as required.

STUDENT COUNSELING SERVICE

The services of this department are available to both registered and prospective students. Counselors and clinical psychologists are permanent staff members of this department, and help students profit from the facilities of the University by making more effective use of their intellectual and personality resources. Student Counseling includes the following activities:

A. Individual Counseling. This program is designed for the student with problems of adjustment to school and personal activities. Personal counseling may help him deal more effectively with his present situation, and to choose more appropriate goals.

B. Group Services. Each session the Student Counseling Service conducts general study skills groups emphasizing effective methods and techniques of studying as well as special study groups dealing with a variety of specific study problems such as: reading improvement, mathematics study skills, notetaking and outlining, and vocabulary building. These group offerings are designed both for students with problems in corresponding areas of University work and for those who are making satisfactory progress and who demonstrate adequate skills but who want to incease their proficiency for academic work. Groups are also organized for students interested in exploring their occupational choices. Students with special difficulties are encouraged to request individual counseling.

C. Vocational and Educational Information Services. As a supplement to individual or group counseling, comprehensive and up-to-date files of job information are provided for students. Facts and figures about job qualifications and preparation, occupational trends, pay scales, employee demand, and the advantages and disadvantages of occupations are easily accessible. Reference material or various scholarship sources, on institutions offering specific educational or training programs, and on requirements and procedures for admission to professional programs are likewise available. Additional vocational and educational information files are maintained by the University Library.

D. Test Services. The Service administers a comprehensive battery of Freshman Guidance Tests to prospective and entering students. Each participant may review his test results with a counselor as an aid to self-appraisal and planning. Counselor and student may agree that further testing is needed, to supplement the Freshman Guidance battery.

Facilities are available for individual testing of aptitudes, vocational and academic interests, and personal-social adjustment. Arrangements for individual assessments are made after discussion with a staff psychologist clarifies the need for testing.

E. Location. The Student Counseling Service is located on the third floor at the east end of the Pier, adjacent to the third floor student lounge in Room 300. Appointments for interviews are arranged by the departmental receptionist. Additional information may be obtained at the reception desk, or by calling WHitehall 4-3800, extension 115.

THE SPEECH IMPROVEMENT LABORATORY

The services of the Speech Improvement Laboratory are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who have foreign accents, hearing defi-

ciencies, or vocal, rhythmic, or articulatory problems are aided by the Laboratory, which also assists students with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical, teaching, or speech careers are aided in meeting professional speech requirements. There are no fees for these services, but some students may be asked to purchase a blank recording disk in order that permanent recordings of their voices may be made. The Speech Improvement Laboratory is located in the Student Counseling Service area on the third floor. It is advisable to make appointments in advance.

HOSPITAL AND MEDICAL SERVICE INSURANCE

All students enrolled and in attendance at the Chicago Undergraduate Division are eligible for the accident and health insurance by paying the hospital and medical service fee. Students not taking the required number of undergraduate hours to be automatically assessed the hopsital and medical service fee may elect to take the coverage by making application to the Cashiers Office after completing registration (within two weeks). Eligible dependents of insured students, including spouse and unmarried dependent children under nineteen years of age, may also be insured by application of the student to the Cashiers Office within two weeks of his registration each semester.

Students intending to enroll for the first semester of the next academic year may elect to take the insurance for the entire summer vacation period by making application at the Cashiers Office between May 15 and June 24. The insured students eligible dependents may also be included for this coverage.

Students enrolling in the summer session who are assessed the hospital and medical service fee are covered only through the date of their last final examination of that session, and not for the entire summer unless they have met the requirements stated in the preceding paragraph.

This insurance plan provides specific benefits under each of the following types of situations: (1) when the student is hospitalized for twelve hours or more, there are benefits for doctor and hospital; (2) when any surgery is performed, a surgical benefit is provided; (3) when a student sustains an accidental injury, there is a limited allowance for treatment during the next seven days; (4) when the student is confined at home because of illness, and the doctor calls at the home, there is a limited benefit for doctor visits and for medicines; (5) when an ambulance is required, there is a benefit limited to $25 maximum; and (6) under item 1 above there is a catastrophe benefit when the basic benefits pay less than two-thirds of the total bills incurred, and there is a consultant benefit up to $25 when approved by the Director of the

University Health Service. Students are urged to read the certificates given to them at registration to determine the exact benefits that apply to specific situations. If the student did not receive a certificate at the time of registration, or if there are questions pertaining to this insurance, the individual should request the Office of the Dean of Students, Student Insurance Administrator, University of Illinois, Navy Pier, Chicago 11, Illinois to supply the necessary information. The telephone number is WHitehall 4-3800, extension 103 or 104.

The entire hospital and medical service insurance fee is expended for sickness and accident insurance to cover each individual student. No portion of this fee is utilized for the maintenance of the University Health Service.

EXTRA-CURRICULAR ACTIVITIES

Student extra-curricular activities are recognized as an important part of the students life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. All questions pertaining to extra-curricular activities should be directed to the Office of the Dean of Students, Room 313.

CLUBS AND ORGANIZATIONS

Many student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body. Interested students are invited to join the club or organization of their choice, but before participating in any extra-curricular activity, a student on scholastic probation must have permission in writing from the Dean of the College in which the student is enrolled. The majority of student activity groups meet weekly or twice monthly during the scheduled activity hour on Tuesday of each week and on the second and fourth Thursdays of each month.

Administration. Student activities and student government are under the supervision of the Dean of Students with the assistance of the Committee on Student Affairs, the Student Congress, and the joint student-faculty Administrative Committees made up of members of the two above-named groups. The function of each group is as follows:

(1) The Committee on Student Affairs is an official body, made up of students, faculty, and administrative personnel. Members are appointed and always include the officers of the Student Congress. Major policies and decisions relating to student activities and student government are referred to this committe by the Dean of Students.

(2) The Student Congress is composed of four officers and twenty representatives. The officers and ten of the representatives are elected

by a vote of the entire student body at a general election each year; the other ten representatives are elected by student organizations to provide one representative for each of ten groups of student activities. Like the Committee on Student Affairs, the Student Congress reports recommended policies and decisions to the Dean of Students for his official approval.

(3) Joint student-faculty Administrative Committees assist in the supervision of student organizations. Each of these seven Committees is composed of a faculty representative from the Committee on Student Affairs and two members of the Student Congress. The Administrative Committees review all matters referred to them, and make recommendations to the Committee on Student Affairs and the Student Congress for appropriate action.

Types of Activities. The student clubs and organizations open to students at the Chicago Undergraduate Division are many and varied. If the kind of activity which the student desires is not listed in the following paragraphs, he should consult the Dean of Students. New groups are formed when sufficient interest is apparent, and the type of organization which is proposed meets University requirements.

Opportunities for experience in journalism are provided by the weekly student newspaper, the *Pier Illini,* written and edited entirely by students. Winner of eight All-American awards presented by the Associated Collegiate Press, *Pier Illini* is open to all students with an interest in any form of writing, art, photography, etc. It offers students practical experience in newspaper work before they attend a professional journalism school. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph,* the University of Illinois engineering periodical. Contributions of student members to the publication of the UIC Writers Club, *Mosaic,* and of members of Alpha Lambda Delta in producing *Chi-Illini Cues* likewise offer opportunities to students interested in journalism.

The Pier Glass, published once each semester, is a magazine of the best themes written in freshman Rhetoric. The ten or twelve students whose essays are chosen receive prizes, as well as the honor of being represented in the anthology and the satisfaction of seeing their work in print. Competition is keen, and every Rhetoric section spends a class meeting in the friendly criticism of the current issue, comparing the merits of the prize-winning papers.

Cultural programs which supplement classroom work for students are offered by the Activities Honorary Society, the Cadet Association, Forensics Honorary (Pi Kappa Delta), Pershing Rifles, and the Student Education Association. Similar purposes are served by three language clubs, and the Amateur Radio, Biology, Chess, Commerce, Geology,

Flying, Humanities, International Relations, Inter-Varsity Christian Fellowship, Jazz, Lituanica, Mathematics, Newman, and Collegians, Am-Pols, and Co-Ed Rifle Clubs. Engineering, architecture, chemistry, pre-dental, pre-law, and pre-medical students may take part in the activities of their respective professional societies of which several are affiliated with national professional organizations. Athletic and physical education organizations include the Varsity Lettermen's Club, Men's Physical Education Majors Club, the Co-Recreation Association, the Cheerleaders, Orchesis (the modern dance organization), the Women's Athletic Association, and the Women's Physical Education Majors Club.

Opportunities for experience in music and drama are available through membership in the University Band, the University Choir, the University Orchestra, and the Pier Playhouse. Students who enroll in the musical organizations at registration and meet other requirements may earn academic credit for this work if they so desire. Several musical programs and plays are presented publicly each year.

All-University dances — informal and semi-formal — are planned, supervised, and sponsored by the University Dance Committee — a subcommittee of one of the seven administrative committees. This committee also assists in planning the Registration Dance and Freshman Mixer as well as assisting in planning the dances for Homecoming and Spring Carnival. The Dance Committee is also available to assist other organizations in planning social functions.

A committee composed of students and staff members is also appointed each year to direct, plan and supervise a Spring Carnival for the purpose of providing an all campus event, to allow students an opportunity to make a contribution to benefit the University, and to enable student organizations to increase funds in the treasury. A similar committee directs and supervises Homecoming Events.

THEATRE AND CONCERT SERIES

By means of a Theatre and Concert Series, the University introduces its students to the cultural and intellectual life of Chicago.

At the beginning of the fall semester, sets of coupons are placed on sale through the University Bookstore at a substantial discount. These coupons are redeemable for tickets for specific performances. Included are an opera, a ballet, a symphony concert, a play and an art movie. Thus the series is a generous sampling of worthwhile entertainment.

UNIVERSITY CINEMA SERIES

Through the University Cinema Series program, students and staff have the opportunity to view outstanding motion pictures at no cost. There are normally two performances, at 5:00 p.m. and 6:30 p.m. in the third floor lounge.

HONORS

The Edmund J. James Scholarships, available to entering freshmen who were in the upper 10 percent of their high school class, are non-cash aids granted on the basis of superior scholastic ability. Candidates who need cash aids are invited to apply for an additional scholarship. The benefit to James Scholars is utilization of the University's facilities to provide education at a depth consistent with the student's superior scholastic ability; the challenge of maximum intellectual development; the stimulation of association with one's mental peers; these without eliminating the personal growth and development which should be a part of college.

Students who achieve a grade average of 4.5 during the freshman year may be eligible for membership in one of the national scholastic honor fraternities. Women who make an average of 4.5 in 15 hours of academic work during their first semester, or an average of 4.5 in 30 hours during their first year, may be initiated into Alpha Lambda Delta. Men whose average is 4.5 based upon 12 or more hours in the first semester, or 4.5 for the entire freshman year, are eligible for membership in Phi Eta Sigma.

Additional honors include: The Ernest C. VanKeuren award (for excellence in the Humanities); the E. B. Freud award (for excellence in Chemistry); the Roscoe E. Harris award (for excellence in Physics); and the Dean's List of the individual colleges (for all students with grades of "B" or better in all courses).

CONVOCATIONS

Each year, six All-University convocations are presented to give students an opportunity to hear outstanding speakers discuss important topics and to present other cultural programs of general interest. These programs are financed by a portion of the student activity fee which is assessed at registration, and admission is free to all students within the seating limitations of the University Auditorium. Selection of programs and other administrative details of convocations are handled by the Convocations Committee.

In addition to the six regular convocations, there is an Honors Day Convocation once each year which is arranged by a special Honors Day Committee. Other special convocations are arranged to meet needs of major significance.

Convocations are held during the activity hour the third Thursday of October, November, December, February, March, and April each year. Honors day is usually held at 10 a.m. on the second Friday of May.

DEBATING

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating, discussion, and individual events. All students, including those without previous experience, may take part in the forensic activities.

The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the area have included colleges and universities from Florida, Texas, Iowa, Michigan, Missouri, Ohio, and New York. Speakers from the Chicago Undergraduate Division also attend tournaments in Illinois and nearby states, where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition. It has won the Chicago Area, the state, and the regional championships, and in 1952, 1953, 1954, 1956 and 1958 represented the East Central States area in the national championship tournament at West Point, New York.

Problems of national and international interest are the topics for public discussion and panel presentations, both on and off campus. These programs, usually followed by audience participation, are sometimes joint presentations with other colleges and universities. Chicago Undergraduate Division speakers are often featured on adult forum programs.

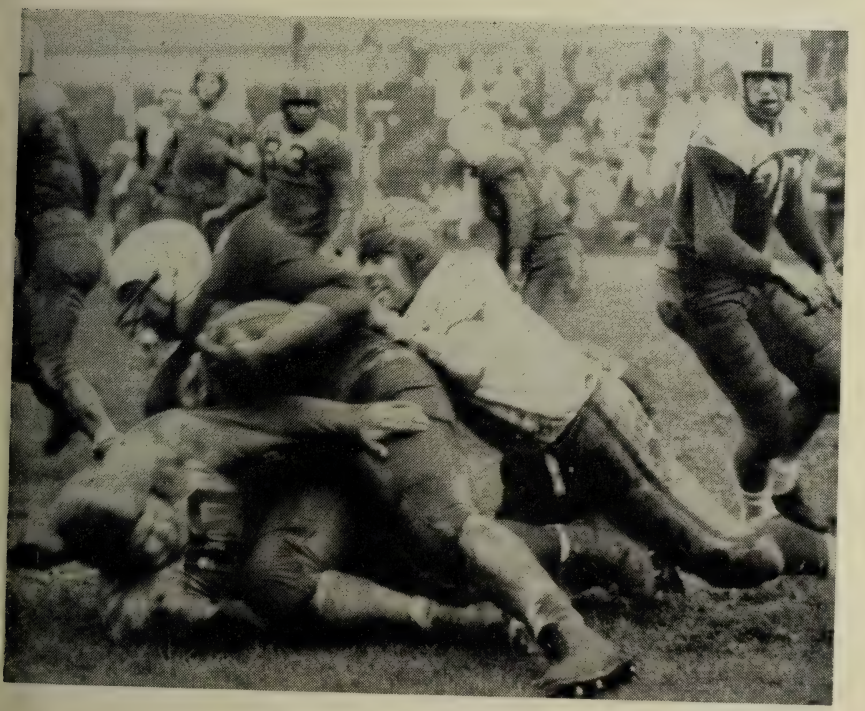
The Chicago Undergraduate Division serves as national headquarters for the National Contest in Public Discussion. It holds membership in the Illinois Intercollegiate Debate League, the Illinois Intercollegiate Oratorical Association, the Chicago Area Debate League, and Pi Kappa Delta. The last of these is a national honorary with 31,000 members and chapters in approximately 270 colleges and universities.

The Chicago Undergraduate Division has been host for some noteworthy forensic events. The Cambridge university debate team met two UIC speakers before an audience of 2,200 in the fall of 1955, and in the spring of 1957 the annual tournament of the Illinois Intercollegiate Debate League was held on this campus. The annual Freshman-Sophomore tournament in December has attracted as many as thirty-nine visiting colleges from eight states, and the annual tournament for high schools in January includes leading teams located within seventy-five miles of Chicago.

ATHLETICS

The Chicago Undergraduate Division participates in eleven varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, soccer, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen in good standing are allowed to participate in varsity sports.

A special feature is the extensive intramural program in which students can elect to take part in wrestling, badminton, table-tennis, volley-



ball, basketball, gymnastics, handball, weight-lifting, tennis, track, and softball. The intramural and intercollegiate programs are under the supervision of an athletic committee of student and faculty representatives. Both programs are financed through funds from student activities fees. The Chicago Undergraduate Division Gymnasium, adjacent to the entrance of the main building, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the gymnasium which has floor space for eight full-size basketball courts.

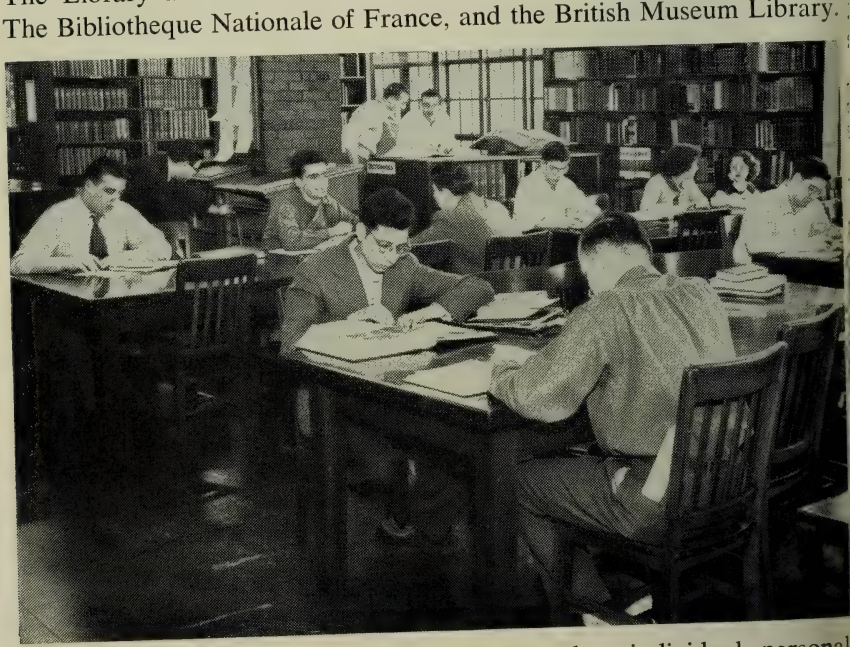
A staff of sixteen coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

UNIVERSITY SERVICES

UNIVERSITY LIBRARY

The University Library provides all the books, related materials, and professional services that meet the needs of students and faculty for information, research, recreation and stimulation of the mind.

At present the book collection totals over 85,000 carefully chosen volumes. The Library is receiving over 750 periodicals and several indexing service publications. Back files for many of these titles have been found and are available for permanent reference use on open shelves. An excellent collection of almost 8,000 general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories has been assembled. Extensive collections of pamphlets, vocational guidance materials, and college catalogs are provided. A depository collection of U. S. Government publications from September, 1957, to date is available. More than 20,000 army, topographical and state highway maps are also to be found. A comprehensive card catalog and modern microprint and microfilm reading machines are available. The Library also has the catalogs of the U.S. Library of Congress, The Bibliotheque Nationale of France, and the British Museum Library.



The main emphasis of the Library is placed on individual, personal service to faculty and students through general reference and reader's advisory assistance plus the library staff liaison with the teaching program and student activities. Formal and informal instruction in the use of library resources and facilities is offered to all undergraduates.

Displays of new and outstanding books of special and unusual interest are maintained in the reading rooms and on the bulletin boards in the lounges and corridors.

The Library has three service areas. (1) The open shelf Main Reading Room handles the basic collection and is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities in addition to well lighted study space for several hundred readers. It also contains the foreign language tape collection and the circulation non-musical phonograph recordings. (2) The Reserve Book Station is located across from the bus terminal at the west end of the Pier and it helps to make assigned reading materials conveniently available. (3) The Fine Arts Reading Room is at the far east end of the Pier on the second level. It contains the collection of art, architecture and music books and offers special facilities for listening to musical and non-musical recordings via earphone as well as in the new soundproof Library Listening Room. It also provides a free lending service of reproductions of famous paintings.

While classes are in session the Main Reading Room is open Monday through Friday from 8 a.m. to 4:30 p.m. The Reserve Book Station and the Fine Arts Reading Room are open Monday through Friday from 8:30 a.m. to 4:30 p.m.

FOOD SERVICE

The University operates non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located

at the east end of the building. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the building, adjacent to the reception lounge. In addition, a dining room at the east end of the building offers cafeteria-style service to members of the faculty and staff.

UNIVERSITY BOOK STORE

The University Bookstore is operated by the University to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8:30 a.m. to 6 p.m.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations are required of all students prior to the time of their first registration. These examinations are given by the staff of the University Health Service without cost; however, the student may elect to be examined by his own physician at no expense to the University. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students without charge.

The staff of physicians also instructs classes in hygiene and sanitation. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations.

It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5 p.m. daily and during vacation periods.

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be started in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Men and women entering the University with less than sixty semester hours of credit are required to secure four semesters of credit in physical education including the amount transferred. Those entering with sixty semester hours or more are exempt from the requirement in physical education.

2. Two semesters of rhetoric (Rhetoric 101 and 102) are required. All students entering the University as freshmen direct from secondary schools are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

THE GRADING SYSTEM

The following grades are given in the University of Illinois: A—Excellent, B—Good, C—Fair, D—Poor (lowest passing grade), E—Failure.

The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean of his college and on payment of a fee of $10 (but not within ten days of the final examination period), or he may take courses in sequence, with the approval of the department.

Other symbols in use are :

W—Withdrawn from the course without penalty.

Ex—Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee, but becomes a failure if not removed during the first semester that the student completes in residence following the giving of the grade of "Ex.")

Ab—Absent from the final examination without excuse; counts as a failure. See under "Failure" for method of earning credit in a course in which an "Ab" grade has been received.

Rep—Replaces grade of "Ex" when course in which "Ex" grade was received is repeated by the student.

Inc—The grade of "Incomplete" is no longer authorized except in the required work in physical education. Except in this department, instructors are required to assign a definite grade representing both the quality and the quantity of the work accomplished.

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A=5 grade points; B=4; C=3; D=2; E=1; Ab=1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn three hours of A, six of B, three of C, two of D, and four of E, the computation of your grade-point average is as follows:

Grade	Hours	Weight	Grade Points	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	
E	4	1	4	56
	—		—	—=3.111
	18		56	18

Your grade-point average is 3.111.

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Through knowledge of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for freshmen and sophomores. Although the factual contents of many of the courses are directly useful in specific vocations, students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible to avoid the narrowing effects of early specialization.

The courses required and available in the first two years in this college are primarily organized to serve as a foundation for building the study in a field of concentration in the junior and senior years.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the School of Journalism and Communications. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Another group of students has not been forgotten. This group comprises those who will not be able to attend school for more than one or two years. The program is so arranged that the maximum benefit of basic business knowledge can be obtained in that more limited period.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must:

1. Fulfill general University requirements as to registration, residence, scholarship, and fees.

2. Have a total of 126 credit hours excluding Physical Education and Military, of which not less than sixty credit hours must be in Accountancy, Business Law, Economics, Management, and Marketing.

Business Education courses may be included in the fields of Commercial Teaching and Secretarial Training. In Commercial Teaching and Commerce and Law only forty-five such hours are required, while in Industrial Administration and in Personnel Management the number of such hours is fifty.

3. Complete courses included in University requirements, College General Education requirements, and College General Business requirements. (see pages 60 and 61.)

4. Complete the requirements for one of the fields of concentration. (See page 61.)

5. Have a minimum average of 3.0 for all courses counted toward graduation, a 3.0 average for those courses taken at this university, and a 3.0 average in 200 and 300 courses in the field of concentration. Physical Education and Military are not counted in the graduation average.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include business law, management, marketing, anthropology, history, philosophy, political science, psychology, and sociology, as well as additional courses in geography, mathematics, science, literature, foreign language, art, architecture, or music. Any advice desired on these electives may be obtained at the office of the dean or from the adviser at the time of registration.

Commerce and Law

Students interested in obtaining a legal education may take their pre-legal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business, corporation or income tax law. The general requirements are the same as those for all Commerce students shown on page 60. The third year includes requirements of special value to the pre-law student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 96 hours, excluding Physical Education and Miltary in the College of Commerce and Business Administration

and thirty hours in the College of Law, including all required courses and all other graduation requirements, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. The approved program for this field for the first two years is shown on page 61.

Prejournalism

Students desiring to enter the College of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The general program for this purpose is the same as that shown on page 60.

Requirements for All Commerce Students

(Except Commercial Teaching)	CREDIT HOURS	NORMAL SEMESTER
I. University Requirements. All availabe at the Chicago Undergraduate Division.		
Military[1]	4	1, 2, 3, 4
Physical Education	4	1, 2, 3, 4
Rhetoric 100[2], 101, 102	6	1, 2, (3)
Total	14	
II. College General Education Requirements. All available at the Chicago Undergraduate Division		
Economics 100 — Introduction to Business (strongly recommended)	(3)[3]	1
Economics 136—Economic History of the United States or Economics 138—Introduction to the Economic History of Modern Europe, or Geography 105—Introductory Economic Geography	0 to 3	2
Literature or Language[4]	6 to 16	3, 4
Mathematics 103—Introduction to College Algebra and Mathematics 112—College Algebra[5]	0 to 3	1, 2
Rhetoric 151—Business Letter Writing	3	3 or 4
Science or Advanced Mathematics[6]	4	1 or 2
Social Science (Anthropology, History, Philosophy, Political Science, Psychology, or Sociology) a minimum of six hours; a minimum of three hours of advanced economics	9 to 12	3 or 4
Speech 101—Principles of Effective Speaking	3	1, 2, 3 or 4
Additional hours in Language, Literature, Advanced Mathematics, Science, Social Science, Art, Architecture, Music, and Geography to bring the total of this group, excluding Economics 100, to 36 credit hours	0 to 11	
Total	36	
III. College General Business Education Requirements. All except those shown with an asterisk are available at the Chicago Undergraduate Division.		
Accountancy 101—Principles of Accounting	3	1
Accountancy 105—Accounting Procedure	3	2
Accountancy 106—Elementary Cost Accounting (recommended), or Accountancy 108—Intermediate Accounting	3	3
Business Law 100—Basic Principles of Business Law	3	4
Economics 102, 103—Principles of Economics	6	3, 4
Economics 170—Elements of Statistics	3	4
Economics 250—Money, Credit, and Banking*	3	
Economics 254—Business Finance*	3	
Management 101—Industrial Organization and Management	3	4
Marketing 101—Principles of Marketing	3	4
Commerce electives*	6	
Total	39	

[1]Not required if first sixty credit hours are taken at the Chicago Undergraduate Division.

[2]Not required unless placement examination so indicates.

[3]For freshmen only. Students with thirty credit hours or more should not take this course.

[4]If literature is elected, six hours of American or English literature requiring sophomore standing will satisfy the minimum requirement. If language is elected, it must be a modern foreign language and the equivalent of four semesters when pursued in college must be taken to satisfy requirements.

[5]The placement examination will determine the mathematics course the student will take. Each student must have Mathematics 112 to complete this requirement, unless the placement test indicates that he already has knowledge equivalent to this. The only students exempted from the placement test are those who have college credit in college algebra.

[6]If science is elected it may be any laboratory science (geography is not included here). If mathematics is elected it may be any course in advance of college algebra, trigonometry included.

IV. Field of Concentration Requirements and Free Electives.
Sufficient credit hours must be taken here to make a grand total of 126 credit hours. None of the required courses in the fields of concentration are available at the Chicago Undergraduate Division.
Fields of Concentration:
- Accountancy
- Commerce and Law
- Commercial Teaching (special program)
- Economics of Government and Business, Public Utilities, and Transportation
- Economic History
- Economic Theory
- Finance
- General Economics (eight sub-fields)
- Industrial Administration
- Insurance (two sub-fields)
- Labor Economics
- Management
- Marketing (nine sub-fields)
- Personnel Management (three sub-fields)
- Secretarial Training
- Statistical Economics (six sub-fields)
- Urban Land Economics

Further information about any of these fields of concentration or any other academic questions arising in connection with any of the above material should be directed to the Associate Dean in charge of the College of Commerce and Business Administration, Room 27.

Curriculum Preparatory to Teaching Commercial Subjects

FIRST YEAR FIRST SEMESTER	17 HOURS
Accy. 101—Principles of Accounting	3
Biology 101—Fundamentals of Biology	4
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Math. 112—College Algebra[1]	3
Rhet. 101—Rhetoric and Composition[2]	3
Physical Education	1

SECOND YEAR FIRST SEMESTER	16 HOURS
Accy. 106—Elementary Cost Accounting	3
Econ. 102—Principles of Economics	3
Geog. 105—Introduction to Economic Geography	3
Rhet. 151—Business Letter Writing	3
Speech 101—Principles of Effective Speaking	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Accy. 105—Accounting Procedure	3
Biology (Botany or Zoology)	4
Ed. 101—The Nature of the Teaching Profession	2
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Rhet. 102—Rhetoric and Composition[2]	3
Physical Education	1

SECOND SEMESTER[3]	17 HOURS
Econ. 103—Principles of Economics	3
Hist. 152—History of the United States	3
Mktg. 101—Principles of Marketing	3
Psych. 100—Introduction to Psychology	4
Sociol. 100—Principles of Sociology	3
Physical Education	1

---

[1]May require adjustment. See note 5 above.

[2]May require adjustment based on placement examination.

[3]If there is room for electives, they could include Business Law 100; Political Science 150 as specific requirements: Accountancy 108, American or English Literature, or Philosophy 105 as option electives; Management 101 as a free elective. Whichever ones are chosen would affect the junior or senior program in that respect.

COLLEGE OF ENGINEERING

To prepare men for professional work in engineering and architecture and for responsible positions of a technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and engineering sciences and their applications to the design, construction, and operation of industrial plants, buildings and homes, and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems similar to those of practicing architects and engineers. The curricula in architecture in the College of Engineering are offered under the Department of Architecture and Art. A discussion of the curricula in architecture is presented following the curricula in engineering.

In addition to the fundamental and technological courses in each curriculum, cultural courses are required, such as history, economics, and rhetoric. Other courses are elective and are presented to provide the student with an awareness of the urgent problems of society and to develop a deeper appreciation of the cultural achievements of man. These socio-humanistic courses, recognized as fundamental background for the achievement of a full life are drawn from liberal arts, sciences, economics, sociology, fine and applied arts, and other sources.

At the Chicago Undergraduate Division the first two years are offered in the fields of aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, industrial engineering, mechanical engineering, metallurgical engineering, mining engineering, theoretical and applied mechanics and the combined liberal arts-engineering curriculum. Those few required courses which are not available here are noted.

Instruction is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois to complete the courses leading to the degree.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curricu-

lum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work consisting of thirty to thirty-six semester hours, acceptable to the faculty of this college, providing plans have been made toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Nontechnical electives include all courses in the College of Liberal Arts and Sciences except those in mathematics, chemistry, and chemical engineering; all courses in the College of Commerce and Business Administration; Architecture 113; Art 111, 112, and 115. The student may petition to receive credit for other courses which conform to the objectives of what are known as the social-humanistic studies. It is expected that the student will consult with his departmental adviser when selecting his nontechnical electives.

Each curriculum offers some elective opportunities, which may be specified as technical, non-technical, social science or humanities. These elective courses must be chosen from department approved lists. Social Science and Humanities includes courses usually drawn from the following fields: Art, Classics, Division of General Studies, Economics, English (not including Rhetoric), Foreign Language, History, Humanities, Philosophy, Political Science, Psychology and Sociology. Each curriculum requires a minimum of 12 hours of courses in these fields. One or more of these courses may be specified in the printed curriculum.

Transfer students may substitute survey courses of nontechnical areas for their nontechnical electives, although circumstances may dictate some reduction in credit.

Departmental electives and technical options are restricted to courses of a technical character as listed under this classification by each department. Options are groups of related courses in a special field of subject matter.

Some of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by curriculum options, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

The entrance requirements to the College of Engineering in mathematics are three and one-half units: algebra, two units; plane geometry,

one unit; and trigonometry, one-half unit. It is recommended that students also take solid geometry in high school. Students continue to be admitted on the basis of a minimum of one unit each in algebra and plane geometry, but they are required to make up the deficiencies during their first year in college. This delays their graduation one semester unless steps are taken early to offset the deficiencies. It is recommended that such students attend a summer session preceding entrance into college or immediately following their first year, thus eliminating the extra semester at the end. A mathematics placement examination is given to all students presenting three and one-half or four units of high school mathematics. A passing grade on this examination is required for a student to enroll in analytic geometry the first semester. Students having college credit for algebra and trigonometry are not required to take this examination.

Freshman students who have had a year of chemistry in high school, who make a high score on the chemistry placement test, and who qualify for at least Mathematics 112 on the mathematics placement test may omit Chemistry 102 and 104. These courses are replaced by Chemistry 109, a five-hour course, and two additional hours of electives.

Transfer students should follow the curriculum listed in the Undergraduate Study bulletin for the year in which they enter the University of Illinois.

Common Program for Freshmen, All Engineering Curricula

FIRST YEAR FIRST SEMESTER 15 OR 16 HOURS		SECOND SEMESTER 18 HOURS	
Chem. 102 or 103[1]—General Chemistry	3 or 4	Chem. 104—Chemistry of Metallic Elements[1]	4
G.E. 100—Engineering Lectures	0	G.E. 102—Engineering Geometry	3
G.E. 101—Engineering Graphical Communication	3	Math. 133—Calculus	4
Math. 123—Analytic Geometry	5	Physics 106—Mechanics	3
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Physical Education	1	Physical Education	1

Curriculum in Aeronautical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 17 HOURS	
Math. 143—Calculus	5	Math. 345—Differential Equations and Orthogonal Functions	3
M. E. 182—Manufacturing Processes	3	Physics 108—Sound, Light, and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Modern History or Political Science	4	Modern History or Political Science	4
Physical Education	1	Physical Education	1

[1]Students may use only three hours of Chemistry 103 towards degree in engineering. See note in paragraph on Common Program for Freshmen about substitution of Chem. 109 for Chem. 102 or 104.

[2]Math. 112 and 114 for those entering with two or three units of high school mathematics. This also applies to those who do not pass the mathematics placement examination.

Curriculum in Ceramic Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS

Cer. E. 101—Introduction to Ceramic Engineering[1] 3
Chem. 124—Quantitative Analysis 5
Math. 143—Calculus 5
Physics 107—Heat, Electricity and Magnetism 4
Physical Education 1

SECOND SEMESTER 18 HOURS

Cer. E. 102—Ceramic Processes and Equipment[1] 3
Geol. 130—Mineralogy for Engineers[1] 3
Physics 108—Sound, Light and Modern Physics 4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Nontechnical Electives 3
Physical Education 1

[1]Not offered at Chicago Undergraduate Division.

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. See page 76.

Curriculum in Civil Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 OR 19 HOURS

C. E. 101—Elementary Surveying 3
Math. 143—Calculus 5
Physics 107—Heat, Magnetism, Electricity 4
T.A.M. 150 or 151—Analytical Mechanics (Statics) ..... 2 or 3
Social Science or Humanities Elective 3
Physical Education 1

SUMMER

C.E. 207—Summer Surveying Camp 5

SECOND YEAR SECOND SEMESTER 17 HOURS

Geol. 150—Geology for Engineers 3
Physics 108—Sound, Light, Modern Physics 4
T.A.M. 221—Analytical Mechanics (Dynamics) 3
T.A.M. 211—Elementary Mechanics of Deformable Bodies 3
Econ. 108—Elements of Economics 3
C. E. 195—Introduction to Civil Engineering 0
Physical Education 1

Curriculum in Electrical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS

Math. 143—Calculus 5
Physics 107—Heat, Electricity and Magnetism 4
Speech 101—Principles of Effective Speaking 3
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Physical Education 1

SECOND SEMESTER 18 HOURS

Econ. 108—Elements of Economics 3
Math. 345—Differential Equations and Orthogonal Functions 3
E.E. 126—Electric Circuits and Fields 4
Physics 108—Sound, Light and Modern Physics 4
Physical Education 1
Social Sciences or Humanities or Technical Elective 3

Curriculum in Engineering Mechanics

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	16 HOURS
Math. 143—Calculus	5
Physics 107—Heat, Electricity, Magnetism	4
T.A.M. 151—Statics	3
Nontechnical Elective	3
Physical Education	1

SECOND SEMESTER	17 HOURS
Math. 341—Differential Equations	3
Physics 108—Sound, Light and Modern Physics	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 221—Elementary Mechanics of Deformable Bodies	3
Nontechnical Elective	3
Physical Education	1

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

FIRST YEAR

Common Program for Freshmen.

(Substitution of Chem. 106 for Chem. 104 is advised).

SECOND YEAR FIRST SEMESTER	17 HOURS
German or Nontechnical Electives[1]	4
Math. 143—Calculus	5
Physics 107—Heat, Electricity and Magnetism	4
Social Sciences or Humanities[1]	3
Physical Education	1

SECOND SEMESTER	16 HOURS
German or Nontechnical Electives[1]	4
Math. 343—Advanced Calculus	3
Physics 108—Sound, Light and Modern Physics	4
Physics 341—Electricity and Magnetism	4
Physical Education	1

[1]Students should consult departmental list of approved courses.

Curriculum in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula with their emphasis on test procedures and design, but who wish to secure a sound education in engineering principles and their application. Two sequences of basic engineering design are available with secondary fields of concentration in business, sales, technical journalism, or geological engineering. Other areas of study may be selected with the approval of the department.

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS
C.E. 101—Surveying	3
G.E. 111—Advanced Drafting or G.E. 112—Gen. Eng. Technology	2
Math. 143—Calculus	5
M.E. 182—Manufacturing Processes	3
Physics 107—Heat, Electricity and Magnetism	4
Physical Education	1

SECOND SEMESTER	17 HOURS
Econ. 103—Elements of Economics	3
G.E. 212—Graphical Calculations	1
Math. 263—Statistics, or Math. 345—Differential Equations	3
Physics 108—Sound, Light and Modern Physics	4
Speech 101—Principles of Effective Speaking	3
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

Curriculum in Industrial Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS
Econ. 108—Elements of Economics	3
Math. 143—Calculus	5
M.E. 183—Materials Casting, or M.E. 184—Metal Processing	3
Physics 107—Heat, Electricity and Magnetism	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

SECOND SEMESTER	17 HOURS
Math 263—Statistics for Engineers	3
M. E. 181—Metal Processing, or M. E. 183—Materials Casting	3
Physics 103—Sound, Light and Modern Physics	4
Speech 101—Principles of Effective Speaking	3
T.A.M. 211—Analytical Mechanics (Dynamics)	3
Physical Education	1

Curriculum in Mechanical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS
Econ. 103—Elements of Economics	3
Math. 143—Calculus	5
M. E. 183—Materials Casting, or M. E. 184—Metal Processing	3
Physics 107—Heat, Electricity, Magnetism	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1

SECOND SEMESTER	17 HOURS
Math. 345—Differential Equations and Orthogonal Functions	3
M.E. 184—Metal Processing, or M.E. 183—Materials Casting	3
Physics 103—Sound Light and Modern Physics	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
Speech 101—Principles of Effective Speaking	3
Physical Education	1

Curriculum in Metallurgical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5
Math. 143—Calculus	5
Physics 107—Heat, Electricity and Magnetism	4
Social Sciences or Humanities	3
Physical Education	1

SECOND SEMESTER	18 HOURS
Cer. E. 221—Pyrometry[1]	2
Met. E. 201—Physical Metallurgy[1]	3
Met. E. 203—Physical Metallurgy Laboratory[1]	1
Physics 108—Sound, Light and Modern Physics	4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Social Sciences or Humanities	3
Physical Education	1

[1]Not offered at Chicago Undergraduate Division.

Combined Program in Engineering and Liberal Arts and Sciences

See the description of this program on page 78 of the catalog.

ARCHITECTURE

Administered by the College of Engineering.

Architecture is a five-year course offered with two optional curricula. The general option offers advanced work in the design and planning of larger projects and the engineering option emphasizes structural design and theory. Both options lead to the degree of bachelor of architecture. The work in the first year is identical and the student makes his choice between the general option and the engineering option at the beginning of the second year. The engineering option requires calculus and more advanced theoretical and applied mechanics.

The general option in architecture contains a well-balanced program of creative and technical training. Together with the necessary practical experience, it prepares the student for State Professional Registration. The engineering option, likewise, prepares the student for registration, but it offers advanced study in structure in place of architectural design in the last year and qualifies the student in the field of architectural engineering.

Both options include general studies in the humanities and the social and physical sciences necessary for the understanding and appreciation of better environment.

The department of architecture offers excellent facilities in lecture, drafting, and class rooms. There is a departmental library of nearly 10,000 volumes, over 10,000 slides, and innumerable magazines, pamphlets, and graphic materials.

Since the Undergraduate Division is located in Chicago, the department has numerous opportunities to present outstanding architects, professional lecturers, and inspection trips to museums, galleries, and various types of buildings under construction.

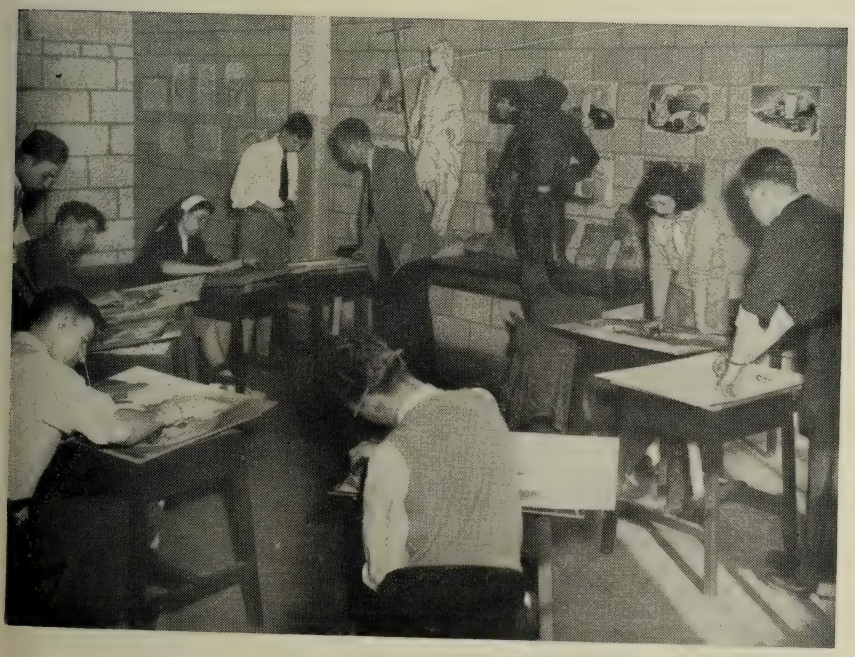
In the curriculum in architecture normal course progress in sequence is imperative. Students failing to complete any required course more than one semester later than the time designated in the curriculum, will be prohibited from progressive registration in architectural courses until the deficiency is corrected.

Regulations governing students who register in the University of Illinois in architecture:

1. Because of space limitations at Urbana, Architecture students who register at the Chicago Undergraduate Division may not transfer

to the Urbana campus until they have completed that portion of the program offered at the Chicago Undergraduate Division.

2. Such students who register at Urbana but who later transfer to the Chicago Undergraduate Division must complete that portion of the program offered at the Chicago Undergraduate Division prior to readmission at Urbana. *Note:* This does not apply to students who transfer to the Chicago Undergraduate Division for the Summer Session.



Electives

Electives provided in the two architectural curricula may consist of any courses given in the University not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives :History 111, 112,131; Botany 100, 101; Geography 101, 104, 105; Geology 101; Biology 101; Speech 101, 141; English 111, 112; Accountancy 101. Courses with prerequisite of sophomore standing which are acceptable as electives include Rhetoric 152; Economics 108; English 131; Political Science 150, 151, and Sociology 100.

Curriculum in Architecture (Five Years)

FIRST YEAR — FIRST SEMESTER	15 HOURS
Art 181—Freehand Drawing	2
G.E. 107—Architectural Projections	2
Math. 112—College Algebra	3
Math 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Elective	2
Physical Education	1

SECOND SEMESTER	16 HOURS
Arch. 101—Introduction to Architecture	3
Art 182—Freehand Drawing	2
G.E. 108—Architectural Projections	2
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR — FIRST SEMESTER	16 HOURS
Arch. 131—Architectural Design	3
Arch. 141—Materials and Methods of Construction I	2
Art 183—Freehand Drawing	2
Physics 101—General Physics	5
Elective	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Arch. 113—History of Ancient Architecture	2
Arch. 132—Architectural Design	3
Arch. 142—Materials and Methods of Construction II	2
Art 184—Freehand Drawing	2
T.A.M. 171—Elementary Mechanics	3
Electives	3
Physical Education	1

THIRD YEAR — FIRST SEMESTER	16 HOURS
Arch. 133—Architectural Design	3
Arch. 143—Materials and methods of Construction III	2
Arch. 214—History of Medieval Architecture	3
Art 281—Freehand Drawing	2
Sociol. 276—Sociology of the City	3
T.A.M. 172—Strength of Materials	3

Curriculum in Architectural Engineering (Five Years)

FIRST YEAR — FIRST SEMESTER	16 HOURS
Art 181—Freehand Drawing	2
G.E. 107—Architectural Projections	2
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Elective	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Arch. 101—Introduction to Architecture	3
Art 182—Freehand Drawing	2
G.E. 108—Architectural Projections	2
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR — FIRST SEMESTER	16 HOURS
Arch. 131—Architectural Design	3
Arch. 141—Materials and Methods of Construction I	2
Art 183—Freehand Drawing	2
Math. 133—Calculus	3
Physics 101—General Physics	5
Physical Education	1

SECOND SEMESTER	17 HOURS
Arch. 113—History of Ancient Architecture	2
Arch. 132—Architectural Design	3
Arch. 142—Materials and Methods of Construction II	2
Art 184—Freehand Drawing	2
Math. 143—Calculus	3
T.A.M. 150—Analytical Mechanics	3
Physical Education	1

THIRD YEAR — FIRST SEMESTER	16 HOURS
Arch. 133—Architectural Design	3
Arch. 143—Materials and Methods of Construction III	2
Arch. 214—History of Medieval Architecture	3
Art 281—Freehand Drawing	2
Sociol. 276—Sociology of the City	3
T.A.M. 221—Resistance of Materials	3
T.A.M. 223—Laboratory	1

ART

Administered by the College of Engineering.

The curricula in Art permit a student to attain a proficiency in art and to secure a liberal education. The first year is basic and cultural and at the beginning of the second year the student chooses his field of specialization in one of the following: Advertising Design, Industrial Design, Art Education, History of Art, Painting. These curricula all require 130 semester hours of credit in addition to physical education and military training for the degree of Bachelor of Fine Arts.

Common Program For Freshman, All Art Curricula

FIRST YEAR FIRST SEMESTER 16 to 18 HOURS	
Arch. 171—Drawing Theory	2
Art 117—Drawing	3
Art 119—Design	2
Rhet. 101—Rhetoric and Composition	3
Foreign Language or Elective[1]	3 or 4
Hygiene 104—Personal and Community Hygiene	2
Physical Education	1
Military (men)	1

SECOND SEMESTER 14 TO 16 HOURS	
Arch. 172—Drawing Theory	2
Art 118—Drawing	2
Art 120—Design	3
Rhet. 102—Rhetoric and Composition	3
Foreign Language or Elective[1]	3 or 4
Physical Education	1
Military (men)	1

[1]Electives must be chosen from the areas of humanities, social sciences, and natural sciences, and must include a minimum of three hours in each area.

COLLEGE OF LIBERAL ARTS AND SCIENCES

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years and to change his vocational objective without additional time. Such a change after the beginning of the junior year usually can not be made without loss of time. It is assumed that except for pre-medical students, upon completion of the two years' work in the Chicago Undergraduate Division, students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division, within the framework of University of Illinois requirements.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, physics, pre-medicine (complete three-year program), predentistry, pre-nursing, teacher-education, pre-law, pre-veterinary medicine, pre-journalism, combined liberal arts-engineering, and one year of occupational therapy. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in the field of concentration before beginning the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum.

Under the guidance of an adviser, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their ad-

vantage to complete the group requirements listed on pages 73 and 74 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Physical Education—Four semesters.

Military Science—Four semesters, except that men transferring from the Chicago Undergraduate Division with sixty hours are exempt from this requirement.

Rhetoric—Rhetoric 101 and 102. (A student with "C" or "D" in Rhetoric 102 must pass a qualifying examination or take Rhetoric 200.)

Foreign Language—Equivalent of two college years in the same language.

U. S. History—One unit of American History in high school or History 151 and 152.

Mathematics—One unit of algebra and one unit of plane geometry in high school or Mathematics 101 and 102.

Biological Sciences[1]—Eight hours.

Physical Sciences[1]—Eight hours.

Humanities[1]—Eight hours.

Social Sciences[1]—Eight hours.

Major—Twenty approved hours in one department.

Minor(s) — Twenty approved hours in one or two departments.

Advanced hours—Thirty hours of credit in courses not open to freshmen and sophomore.

Residence—Either first ninety hours uninterrupted, or last thirty hours uninterrupted at the University of Illinois. For students at the Chicago Undergraduate Division, the junior or senior year (thirty semester hours) must be taken at Urbana.

Average—3.0 ("C") minimum average in all work and in all work at Illinois.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of "D".

[1]The eight hours must be taken in approved sequence.

REQUIRED SUBJECTS

1. Foreign Language. A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, Russia, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portuguese 104, Russian 104, Spanish 104, or a more advanced

course in any of these languages. Proficiency examinations are offered in French, German, and Spanish. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

2. Group Requirements. To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

a. Basic Knowledge. From high school: one unit of American history or History 151 and 152; one unit of algebra and one unit of plane geometry or Mathematics 101 and 102.

b. General Education. An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.

ELECTIVES

1. Liberal Arts and Sciences. Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

2. Other Colleges. Electives totaling as much as but not more than thirty-two hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list:

Accountancy. A total of 6 hours (including not more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics. A total of 6 hours.

Architecture. A total of 15 hours.

Art. A total of 15 hours, unless the student is majoring in history of art.

Aviation. A total of 3 hours.

Business Law. A total of 6 hours.

Economics. All courses.

Education. A total of 20 hours.

Engineering. A total of 10 hours for LAS students. However, a student in the combined LAS—Engineering Curriculum may count all engineering courses toward the two degrees.

Finance. All courses.

Food Technology. A total of 6 hours.

Forestry. A total of 3 hours.

Home Economics. All courses.

Horticulture. A total of 6 hours.

Hygiene. A total of 2 hours.

Journalism. A total of 10 hours.

Landscape Architecture. A total of 7 hours.

Law. A student of senior standing with an average of 3.5 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the University of Illinois College of Law. A student of senior standing with an average of 3.5 who has completed his first three years (not less than 88 semester hours excluding basic military and physical education) in residence at the University of Illinois (a student at the Chicago Undergraduate Division must complete his junior year with at least 30 semester hours at Urbana) and who transfers to an accredited college of law other than that of the University of Illinois may count 32 hours of law toward the A.B. degree. The applicant for the degree will petition the dean of the College of Liberal Arts and Sciences, who may approve the granting of the bachelor's degree if all the college and university requirements have been met.

Library Science. A total of 20 hours.

Management and Marketing. A total of 6 hours. Typing, secretarial training, and shorthand may not be counted for credit.

Military. A total of 8 hours in advanced courses.

Music. A total of 15 hours approved by the Director of the School, unless the student is majoring in music.

Physics. All courses.

Chemistry and Chemical Engineering

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 123, and who do not have two units of high school credit in French or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing in the curriculum.

Curriculum in Chemistry

FIRST YEAR — FIRST SEMESTER	17 HOURS
Chem. 107—General Chemistry[1]	5
German or French	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 108—General Chemistry and Qualitative Analysis	5
German or French	4
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	

SECOND YEAR — FIRST SEMESTER	16 HOURS
Chem. 124—Quantitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	5
Physical Education	
Electives[2]	3

SECOND SEMESTER	17 or 18 HOURS
Chem. 234—Organic Chemistry	5
Math. 143—Calculus	5
Physics 107—Heat, Electricity, Magnetism	5
Physical Education	
Electives[2]	2 or 3

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

Curriculum in Chemical Engineering (Four Years)

FIRST YEAR	FIRST SEMESTER	16 HOURS
Chem. 107—General Chemistry[1]		5
G. E. 101—Elements of Drawing		3
Math. 123—Analytic Geometry[3]		5
Rhet. 101—Rhetoric and Composition		3
Physical Education		

	SECOND SEMESTER	15 to 18 HOURS
Chem. 108—General Chemistry and Qualitative Analysis		5
Math. 133—Calculus		5
Physics 106—Mechanics		3
Rhet. 102—Rhetoric and Composition		4
Electivese[2]		3
Physical Education		0 to 3

SECOND YEAR	FIRST SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis		5
German or French[4]		4
Math. 143—Calculus		5
Physics 107—Heat, Electricity, Magnetism		4
Physical Education		

	SECOND SEMESTER	17 HOURS
Chem. 342—Elementary Physical Chemistry		3
German or French[4]		4
Physics 108—Sound, Light and Modern Physics		4
T.A.M. 150—Analytical Mechanics (Statics)		2
Physical Education		
Electives[5]		4

Optional Curriculum in Chemical Engineering (Five Years)

FIRST YEAR	FIRST SEMESTER	15 to 17 HOURS
Chem. 101 or 102—General Chemistry[6]		5 or 3
German or French		4
Math. 112—College Algebra		3
Math. 114—Trigonometry		2
Rhet. 101—Rhetoric and Composition		3
Physical Education		

	SECOND SEMESTER	17 HOURS
Chem. 106—Inorganic Chemistry		5
German or French		4
Math. 123—Analytic Geometry		5
Rhet. 102—Rhetoric and Composition		3
Physical Education		

SECOND YEAR	FIRST SEMESTER	17 HOURS
Chem. 110—Qualitative Analysis		5
German or French		4
Math. 133—Calculus		3
Physics 106—Mechanics		5
Physical Education		

	SECOND SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis		5
German or French		4
Physics 107—Heat, Electricity, Magnetism		4
Math. 143—Calculus		5
Physical Education		

---

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

[3]Students without the required entrance credits in mathematics take Mathematics 112 (or 103), 114, 123, 133, and 143.

[4]Two years of German and/or French are required for the B.S. degree. Two units of high school credit in either of these languages is equivalent to one year of college credit. Students entering without German or French in high school may substitute the second year of the language requirement for the eight hours of electives referred to in footnote 5.

[5]Eight hours of electivese must be chosen from the Divisions of Humanities or Social Sciences with the approval of the adviser. The courses are intended to broaden the engineer and provide an interest and liberal education in history, language, literature, philosophy, political science, or public speaking.

[6]Students who qualify for Chemistry 107 should take the Chemistry 107, 108, 124, 342 sequence rather than Chemistry 101, 106, 110, 124 and thus have five additional hours of advanced electives.

Combined Program in Engineering and Liberal Arts and Sciences

The Colleges of Engineering and Liberal Arts and Sciences offer a combined program of five years leading to a baccalaureate degree from each college. This curriculum requires 166 hours for graduation, exclusive of physical education and military science. It is possible to combine any of certain Engineering curricula—aeronautical, agricultural, civil, electrical, engineering mechanics, physics, industrial, mechanical —with any one of certain majors in Liberal Arts and Sciences—anthropology, astronomy, classics, English, French, history, Latin, mathematics, philosophy, physics, political science, psychology Russian, sociology, Spanish, speech. Other combinations will require more than ten semesters.

The first year is the program common to freshman in Engineering and may be taken in either college. The second and third years are taken in Liberal Arts and Sciences, and the last two years are taken in Engineering. All graduation requirements of both colleges must be met.

Students entering this curriculum must meet the admission requirements of both colleges. A student dropping out of the program will be subject to the existing graduation requirements of the college of his choice. A student in the curriculum is governed by the probation and drop rules of the college in which he is registered. A student who completes the foreign language requirement in Liberal Arts and Sciences in less than four semesters must replace the hours thus released by work in social sciences or humanities.

Graduation will be from both colleges simultaneously on completion of the entire program.

Transfer students who have more than 75 hours are ineligible for this program. Applications from transfer students for the combined program must be made at least six weeks in advance of the opening of the term.

Forestry Curriculum

Students may take the first year of the four-year forestry curriculum, administered by the College of Agriculture at Urbana, at the Chicago Undergraduate Division. Courses for the freshman program in forestry should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Home Economics Curriculum

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the

freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Pre-dental Curriculum

Students applying for admission to the pre-dental curriculum must have ranked in the upper half of their high school graduating classes. They must maintain at all times in the curriculum a minimum average of 3.5. Since the function of the pre-dental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours include history, economics, sociology, philosophy, and at least one modern language.

The specific requirements for admission to the College of Dentistry are as follows:

	SEMESTER HOURS
Chemistry (including three hours of quantitative analysis and four hours of organic chemistry—Chemistry 101 or 102, 105, 122, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology[1])	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives (including history, economics, sociology, philosophy and at least one modern language; excluding military, hygiene, and physical education)	30
Total	60

[1]The general zoology requirement may be met by Biol. 101 and 131 or Biol. 101 with a grade of "B."

Pre-journalism Curriculum

Students planning to enter the College of Journalism and Communications register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the College of Journalism and Communications as a candidate for a degree, a student must have completed fifty-six semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military training, with an average grade of 3.5. An applicant for admission will find it to his advantage to include in his pre-journalism curriculum courses in economics, English, history, foreign languages, political science, psychology, and sociology.

The College of Journalism and Communications offers the following curricula: editorial, advertising, publication, management, and radio-television.

Pre-law Curriculum

The pre-legal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Service at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements except the minor and advanced hours before entering the College of Law. The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; psychology; sociology; mathematics; and accountancy.

Pre-medical Curriculum

Any freshman whose scholastic rank is in the upper half of his high school graduating class, provided he has credit in elementary algebra and plane geometry, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum. Pre-medical students must maintain a 3.5 average to remain in the curriculum. A student transferring to this college with advanced standing must meet this standard in terms of the University's grading system in order to be admitted to the pre-medical curriculum.

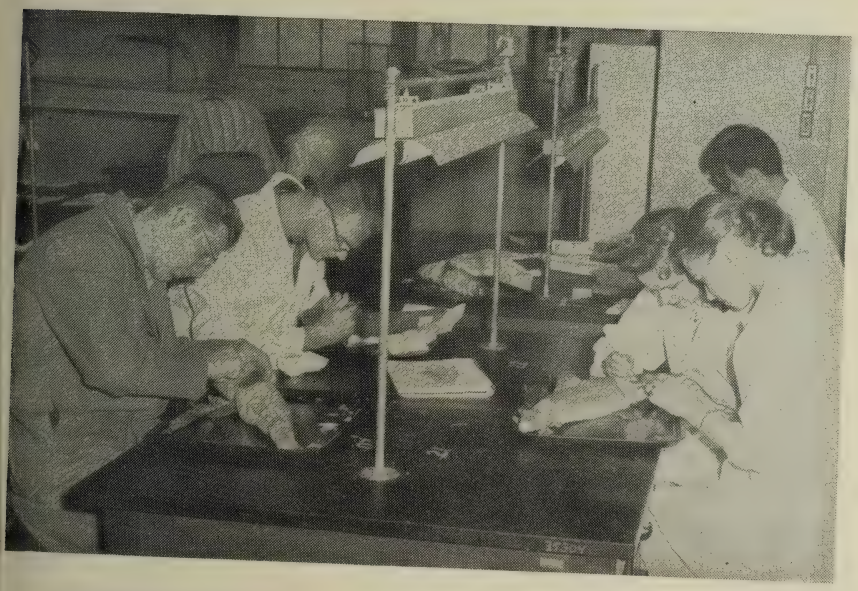
Other factors being equal, students at the University of Illinois who have completed the pre-medical curriculum with an average of 4.3 or better, will be given preferential consideration by the Committee on Admissions of the College of Medicine, provided that at least the second and third years have been done within the University.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	SEMESTER HOURS
Non-science Courses (32 semester hours required)	
English	
Foreign Language	
Social Science and Humanities (at least three hours from each area)	
Electives	
Laboratory Sciences (32 semester hours required)	
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and embryology)	
Chemistry (including in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	
Physics (including laboratory work in mechanics, heat, sound, light, and electricity)	
Free Electives	
Total	

Curricula in Nursing

The University offers two degree programs leading to a Bachelor of Science in Nursing. One is for students direct from high school, the second is a continuation program for registered nurses who meet a specific set of requirements. Each program is made up of two phases—a pre-professional year in the College of Liberal Arts and Sciences, and the professional phase administered by the School of Nursing.



Admission to the pre-professional year in both programs is restricted to students from the upper half of the high school class who are eligible to enter the College of Liberal Arts and Sciences. Transfer students must have a 3.0 scholastic average.

Admission to the professional phase is on recommendation of the Admissions Committee of the School of Nursing after completion of the following pre-professional year:

Physical Education	2
Rhetoric 101, 102	6
Chemistry 102 (or 101), 132	6-8
Biology 101	6-8
Humanities	4*
Social Sciences	6-8
Electives	6-8
Total	32

*Not required of registered nurses who are candidates for the continuation program.

Specific questions on both programs should be addressed to the Dean of the School of Nursing, 1853 W. Polk Street, Chicago 12, Illinois.

Occupational Therapy

The University offers a bacculaureate degree program in occupational therapy, open both to men and women and requiring six semesters of work in the College of Liberal Arts and Sciences and five quarters in the College of Medicine. The first year may be taken at the Chicago Undergraduate Division.

Admission to the curriculum is restricted to students from the upper half of the high school graduating class, who are in good health as determined by a physical examination, and who are approved by the Director of the curriculum. A 3.5 average is required for admission to the professional phase of the curriculum.

The work of the first year is as follows:

	SEMESTER HOURS
Rhetoric 101, 102	6
Biology 101, 141	8
Art 181, 182	4
Speech 101	3
Hygiene 104	2
Electives (foreign language, social science, humanities)	8-10
Physical Education	
Total	31-33

Curriculum in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining the B.S. degree. It specifies the courses essential to a strong foundation in physics and permits concentration in the first two years on basic courses which are prerequisite to advanced courses in physics and mathematics.

It is planned for a student entering with four years of high school mathematics, including trigonometry (see, however, footnote 1 following curriculum), a year of chemistry and no French or German. A student who can satisfy the college language requirement on entering has the distinct advantage of adding 16 hours of electives to his course of study. A student who has a year of high school biology will also have more freedom in choice of electives (see footnote 4 following curriculum).

To enter the physics curriculum, an entering freshman must rank in the upper half of his high school class. To be permitted to register in advanced physics or mathematics courses in this curriculum, student must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military science and physical education, and a combined grade average of at least 3.5 in all courses completed in physics and mathematics. Transfer students must have a corresponding record in the institution from which they transfer.

FIRST YEAR FIRST SEMESTER	16 HOURS
Math. 123—Analytic Geometry[1]	5
Chem. 103—General Chemistry[2]	4
German or French[3]	4
Rhet. 101—Rhetoric and Composition	4
Physical Education	3

SECOND YEAR FIRST SEMESTER	17 HOURS
Math. 143—Calculus[1]	5
Physics 106—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	4

SECOND SEMESTER	16 OR 17 HOURS
Math. 133—Calculus[1]	3
Chem. 104—Chemistry of the Metallic Elements[2]	4
German or French[3]	4
Rhet. 102—Rhetoric and Composition	3
Physical Education	
Electives	2 or 3

SECOND SEMESTER	15 HOURS
Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

[1]The prerequisite to entering the stated sequence in mathematics is three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the mathematics placement examination. Students having college credit for algebra and trigonometry are not required to take the examination. A student who does not meet the above prerequisite may meet the requirements in basic mathematics with the sequence Math. 112, 114, 123, 133, 143, but he will receive only 13 hours credit toward the degree.

[2]The chemistry requirement may be satisfied by a year of general chemistry selected from courses Chem. 101 through 108, or by the one-semester course, Chem. 109. A maximum of eight hours in general chemistry will be counted toward the degree, except that ten hours will be allowed for Chem. 107 and 108.

[3]The language requirement is a reading knowledge of German or French. A student planning to enter graduate study should attain a reading knowledge of both German and French.

[4]The elective subjects must include at least 24 hours of course work in humanities, social sciences, and biological sciences. The courses must satisfy the general education requirements of the college, except that students offering one unit or more of biology for admission may substitute additional courses in humanities and social sciences for biological sciences. Students will be advised to include six to eight hours of physics and three to six hours of mathematics among the remaining electives.

Teacher Education Curricula

Of the curricula in teacher education which have been approved by the College of Liberal Arts and Sciences, preliminary work in thirteen curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid, and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

While these curricula vary considerably from one another, the common core of the first two years is as follows:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR SEMESTER HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech 101	3	
Foreign Language (until a 104 course is completed)	8	8
English or Social Studies as required	6-8	
Specific requirements, Education 101, History 152, Political Science 150, Psychology 100		6-8
Work in major teaching field and electives	3-7	12 4-6
Total	30-32	32-34

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this College.

The work of the first two years in this curriculum has the following pattern:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR SEMESTER HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech	2-3	
Language arts	6-8	
Science, biological and physical	8	8
Social Studies	8	
Specific requirements, Education 101, Geography 104, History 152, Political Science 150, Psychology 100		15
Electives		7-9
Total	32-34	32-34

Admission to the curricula preparatory to teaching deaf and hard-of-hearing children and mentally handicapped children requires the meeting of qualitative and physical requirements and a personal interview. The determination of courses will be made with a teacher education advisor.

Pre-veterinary Curriculum

The two-year pre-veterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the pre-veterinary curriculum must rank in the upper half of their high school graduating classes. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

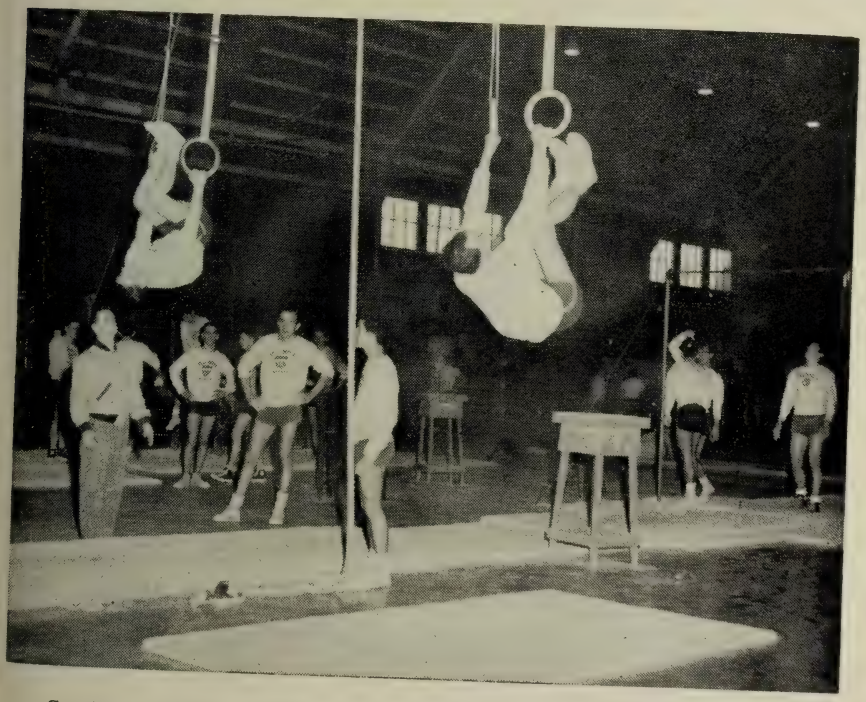
The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	SEMESTER HOURS
Chemistry (including organic and quantitative analysis—Chemistry 101 or 102, 105, 122, and 133)	16
Biological Sciences (including botany and general zoology)	8
Physics (including laboratory—Physics 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	6
Free electives	6
Total	60

The pre-veterinary curriculum is extremely rigid and failure to register in the prescribed courses in the proper sequence may result in an additional semester of study.

COLLEGE OF PHYSICAL EDUCATION

All students entering the university as freshmen are required to obtain four hours credit in physical education. Each student is given a health examination and a placement test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to prescribed activities. Students with low scores in the placement test are assigned to basic physical fitness courses.



Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for one and one-half hours. All general courses in physical education carry one hour credit.

Men students entering the University with less than sixty semester hours credit are required to secure four semesters of credit in physical education, including the amount transferred. In addition to intercollegiate and intramural athletics, men students in the physical education classes are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, personal defense activities, and a basic physical fitness program.

Women students entering the University as freshmen are required to obtain credit for four semester hours of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of physical education. Women are offered instruction in elementary and intermediate rhythms, ballroom dance, speedball, modified activities, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's physical education classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extra-curricular activities in sports and the dance.

Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempt from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce and Business Administration.

PROFESSIONAL CURRICULA

In addition to the service program, the College of Physical Education offers the first two years of a four-year program leading to the degree of Bachelor of Science in Physical Education, for both men and women. Men desiring to major in Recreation or Health Education, and women desiring to major in Dance, may take at least one year of work at this Division. Complete information concerning the professional curricula is available at the office of the Associate Dean of the College of Physical Education (for men) and from the Head of the Department of Physical Education for Women.

Curriculum in Physical Education for Men

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 150—Professional Orientation	2	P.E.M. 155—Gymnastics & Wrest.	2
P.E.M. 151—Beginning Basketball	2	P.E.M. 156—Track & Baseball	2
P.E.M. 152—Beginning Football	2	Biol. 101—Fundamentals of Biol.	4
Speech 101—Prin. of Effect. Sp.	3	Rhet. 102—Rhetoric & Comp.	3
Rec. 176—Camp Counseling	3	Hyg. 110—Public Health	2
Hyg. 104—Science of Per. Health	2	Humanities Elective	3
Rhet. 101—Rhetoric & Composition	3		16
	17		

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 153—Fitness Programs	2	Rec. 170—Outdoor Rec. Spts.	2
P.E.M. 154—Swimming	2	Rec. 171—Indoor Rec. Spts.	2
Rec. 176—Principles of Rec.	3	Dance 235—Square & Ballrm.	2
Pol. Sci. 150—American Government	3	P.E.M. 209—History of Spt.	3
Psych. 100—Introduction to Psych.	4	History 152—American History	3
Education 201—Found. of Am. Ed.	2	Rhet. 151—Bus. Letter Writ.	3
	16	Electives	2
			17

Curriculum in Physical Education for Women

A minimum of 132 hours of credit, counting physical education, is required for graduation.

FIRST YEAR

FIRST SEMESTER	HOURS
P.E.W. 150—Professional Orientation	2
P.E.W. 151—Body Mechanics and Gymnastics	1
P.E.W. 111 or 112—Swimming	1
Rhet. 101—Freshman Rhet. and Comp.	3
Zool. 104—Elementary Zoology	4
Hygiene 104—The Science of Personal Health	2
Gr. Elective 1	3
Total	16

SECOND SEMESTER	HOURS
P.E.W. 152—Volleyball and Softball	1
Dance 160—Beginning Contemporary Dance	1
Rhet. 102—Freshman Rhet. and Comp.	3
Speech 101—Principles of Effective Speaking	3
Psych. 100—Introduction to Psychology	4
Gr. Elective 1	3
Total	15

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.W. 153—Hockey, Soccer and Basketball	1	P.E.W. 154—Tumbling and Tennis	1
Dance 235—Square and Ballroom Dance	2	P.E.W. 166—Elementary School Games	2
H.E. 281—First Aid	2	P.E.W. 167—Teaching of Gymnastics and Dance	2
Physiol. 104—Physiological Anatomy	5	Physiol. 105—Physiological Anatomy	5
Ed. 236—Child Development for Elementary Teachers or Psych. 216—Child Psychology	3	Hist. 152—History of U.S. from 1865 to Present	3
Gr. Elective I	2	Free Elective or Minor I	4
Total	15	Total	17

U. S. ARMY RESERVE OFFICERS' TRAINING CORPS

Authorization

The Reserve Officers' Training Corps (R.O.T.C.) is organized under authority of section 40 through 47c of the National Defense Act of 1916, as amended, and was activated at the University of Illinois, Chicago Undergraduate Division, in September 1950.

Educational Aim

The fundamental educational aim of the R.O.T.C. is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and to so prepare him that, in time of national emergency, he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspects of the military training program give the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should instill in the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The R.O.T.C. course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the R.O.T.C. are that the student be regularly enrolled in the University, be a citizen of the

United States, be within specified age limits, be physically qualified, and be approved by the Professor of Military Science and Tactics.

Note: Students who voluntarily enroll in R.O.T.C. thereby become obligated to fulfill the University degree requirement in Military Science; namely, successful completion of the basic course.

Program of Instruction

College level R.O.T.C. instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, comprising the last two years of the program. Only the first two years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the basic course. Students in the basic course will devote three hours a week to military instruction which will consist of two hours of classroom instruction and one hour of drill. Accreditation for the basic course is one hour each semester. A student entering the University of Illinois after successfully completing military training at a high school or preparatory school which has an accredited Junior Division R.O.T.C. program will be entitled, upon enrollment, to such placement as may be determined by the Professor of Military Science and Tactics. In no case will this placement exceed the first year of the basic course. Any member of the U. S. Army Reserve who has completed a six-month tour of active duty for training is eligible to enroll in the basic course of R.O.T.C. Constructive credit not to exceed the first year of the basic course may be given to individuals in this category. These individuals also may substitute completion of a satisfactory year of R.O.T.C. training for a required satisfactory year of training in the Ready Reserve.

Advanced Course

The advanced course of the R.O.T.C. leads to a Reserve or Regular commission in the U. S. Army. Any student enrolling in the advanced course must be prepared to pursue the course to completion, and must be able to qualify for appointment as a second lieutenant prior to reaching twenty-eight years of age. The objective of the advanced course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular Army units.

All members of the advanced course will receive the following: monetary allowance in lieu of subsistence, officer-type uniform, the pay of the first enlisted grade while at the advanced summer encampment, and all necessary texts and materials on a loan basis.

Deferment from Selective Service

Deferment from Selective Service is granted for completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and civilian faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the R.O.T.C. receive an Army officer-type uniform and textbooks at government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of $10 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

COURSES OF INSTRUCTION

All courses are offered each semester, unless otherwise indicated (I, fall semester only; II, spring semester only). The number of hours of credit for each course is indicated in the text of the course description, as are prerequisites and restrictions.

ACCOUNTANCY

Accy. 101. Principles of Accounting. Credit 3 hours. Beginners' course. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students with 95 or more credit hours receive only 2 hours credit.

Accy. 105. Accounting Procedure. Credit 3 hours. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting, business forms and records; payroll accounting; single entry; financial statement analysis. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

Accy. 106. Elementary Cost Accounting. Credit 3 hours. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. Prerequisite: One year of accountancy; sophomore standing.

Accy. 108. Intermediate Accounting. Credit 3 hours. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. Prerequisite: One year of accountancy; sophomore standing.

ARCHITECTURE

Arch. 101. Introduction to Architecture. Credit 3 hours. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Prerequisite: Credit or registration in General Engineering 107.

Arch. 113. History of Ancient Architecture. Credit 2 hours. A description and analysis of the development of the architecture of the ancient East, Greece and Rome, related to the environmental and cultural setting. Prerequisite: Architecture 131 or sophomore standing.

Arch. 131. Architectural Deesign. Credit 3 hours. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. Prerequisite: Sophomore standing, Arch. 101, credit or registration in G.E. 108, and registration in Arch. 141.

Arch. 132. Architectural Design. Credit 3 hours. Continued study of the fundamentals of architectural design. Prerequisite: Architecture 131.

Arch. 133. Architectural Design. Credit 3 hours. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. Prerequisite: Architecture 132, credit or registration in T.A.M. 150 or 171, and registration in Arch. 143.

Arch. 141. Materials and Methods of Construction I. Credit 2 hours. Wood frame construction as used in houses; manufacture and performance characteristics of materials; framing systems; typical details; finishing materials: Prerequisite: Registration in Architecture 131.

Arch. 142. Materials and Methods of Construction II. Credit 2 hours. Non-fire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures and drawings. Prerequisite: Architecture 141.

Arch. 143. Materials and Methods of Construction III. Credit 2 hours. Semi-fireproof construction, manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Prerequisite: Architecture 142 and registration in Arch. 133.

Arch. 214. History of Medieval Architecture. Credit 3 hours. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. Prerequisite: Architecture 113 or consent of instructor.

ART

Art 111. Survey of Art History. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. I.

Art 112. Introduction to Renaissance and Modern Art. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. II.

Art 115. Art Appreciation. Credit 3 hours. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students.

Art 117. Drawing I. Credit 3 hours. Theory and practice in the elements of drawing. I.

Art 118. Drawing II. Credit 2 hours. Continuation of Art 117. Prequisite: Art 117. II.

Art 119. Design. Credit 2 hours. Theory and practice in the elements of design. I.

Art 120. Design. Credit 3 hours. Continuation of Art 119. Prerequisite: Art 119. II.

Art 181. Freehand Drawing. Credit 2 hours. Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture.

Art 182. Freehand Drawing. Credit 2 hours. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Prerequisite: Art 181.

Art 183. Freehand Drawing. Credit 2 hours. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 182.

Art 184. Freehand Drawing. Credit 2 hours. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 183.

Art 281. Freehand Drawing. Credit 2 hours. Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. Prerequisite: Art 184.

BIOLOGICAL SCIENCES

Biology 101. Fundamentals of Biology. Credit 4 hours. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for both Biol. 101 and D.G.S. 131.

Biology 102. Fundamentals of Biology, Continued. Credit 4 hours. Application of biological principles to the living world. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biol. 101. Credit will not be given for both Biol. 102 and D.G.S. 132.

Biology 111. General Botany. Credit 4 hours. The basic principles of plant structure, growth, physiology, reproduction, evolution and distribution, with special emphasis upon the role of the plant kingdom in the cycles of nature and human life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement or consent of the instructor.

Biology 115. Introductory Systematic Botany (Plant Taxonomy). Credit 4 hours. Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures and laboratory. Prerequisite: Biology 102 or 111.

Biology 116. Economic Botany. Credit 3 hours. Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Applications to forest, drug, food, textile, beverage and other industries. Lectures and discussion. Prerequisite: Biology 102 or 111. II.

Biology 121. Microbiology. Credit 4 hours. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic, evolutionary, physiological and ecological relationships of these organisms with

both plant and animal worlds will be considered. Lectures and laboratory. Prerequisite: Biology 102 or consent of instructor.

Biology 126. Advanced General Bacteriology. Credit 4 hours. General technic, special apparatus and methods. Lectures and laboratory. Prerequisite: Biology 121, credit or registration in Chemistry 105. II.

Biology 131. General Zoology. Credit 4 hours. A survey of the animal kingdom. The structures, functions, life history, adaptations, classification and evolutionary relationships of animals. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology III.

Biology 132. Comparative Vertebrate Anatomy. Credit 5 hours. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. Prerequisite: Biology 102 or 131, or Biology 101 with a grade of "B" or higher.

Biology 136. Bird Study. Credit 2 hours. Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation. II.

Biology 141. Vertebrate Physiology. Credit 4 hours. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prequisite: Biology 101.

Biology 142. Physiology of the Nervous System. Credit 4 hours. This course is designed to furnish an understanding of the physiological activities by which the nervous system carries out its function. Recommended as background for students of psychology, education, or biological sciences. Lectures and laboratory. Prerequisite: Biology 141.

Biology 161. Zoology for Pharmacy Students. Credit 4 hours. This course prepares the student in Pharmacy for the upper division studies in Physiology and Pharmacology. I.

Biology 162. Zoology for Pharmacy Students. Credit 4 hours. This course prepares the student in Pharmacy for the upper division studies in Physiology and Pharmacology. Prerequisite: Biology 161. II.

Biology 333. Vertebrate Embryology. Credit 5 hours. The development of the vertebrate body and its organs. Lectures and laboratory. Prerequisite: Biology 132, junior standing.

BUSINESS LAW

Business Law 100. Basic Principles of Business Law. Credit 3 hours. Basic principles of business law, covering the subjects of contracts, sales, negotiable instruments and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. Prerequisite: Accountancy 105; Economics 102; 45 credit hours.

CHEMISTRY

(All courses, except 247, 342, 343, consist of lectures, laboratory and quiz.)

Chem. 101. General Chemistry. Credit 5 hours. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 102. General Chemistry. Credit 3 hours. For students who have had one year of high school chemistry, and whose preparation is adequate as indicated by placement examination. Students with 95 or more credit hours receive only 2 hours credit. Prequisite: One unit of entrance credit in chemistry or equivalent.

Chem. 103. General Chemistry. Credit 4 hours. For engineering students who have had no chemistry or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in Mathematics, or credit in Mathematics 103 or 112.

Chem. 104. Chemistry of the Metallic Elements. Credit 4 hours. Limited to students in engineering curricula. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105, 106, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 105. Inorganic Chemistry and Qualitative Analysis. Credit 5 hours. For students who are not eligible for Chemistry 104 or 106. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

Chem. 106. Inorganic Chemistry. Credit 5 hours. Metallic elements. For students in curricula in chemistry, chemical engineering and chemistry majors who are not premedical students. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104, 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102, or 103.

Chem. 107. General Chemistry. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school backgound in chemistry as shown by a placement examination. I.

Chem. 108. General Chemistry and Qualitative Analysis. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Credit is not granted to students who have received credit in Chemistry 104, 105, 106, or 109. Prerequisite: Chemistry 107. II.

Chem. 109. General and Inorganic Chemistry. Credit 5 hours. A course in general chemistry and the chemistry of the elements and inorganic compounds, completing in one semester the work usually taken in two. Limited to students in the engineering and physics curricula. Not open to students who have college credit in chemistry. Student with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry, as shown by placement examination.

Chem. 110. Qualitative Analysis. Credit 5 hours. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students who major in chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. Prerequisite: Chemistry 106 or equivalent.

Chem. 122. Elementary Quantitative Analysis. Credit 5 hours. Gravimetric and volumetric analysis, stoichiometrical relations, practical application. Prerequisite: Chemistry 105 or equivalent.

Chem. 123. Quantitative Analysis for Engineers. Credit 5 hours. A course in quantitative analysis designed for the needs of engineers, especially ceramic and metallurgical. Prerequisite: Chemistry 104, 105 or 109. II.

Chem. 124. Quantitative Analysis. Credit 5 hours. For all students in the chemistry curriculum and chemical engineering. Prerequisite: Chemistry 108, 110 or equivalent.

Chem. 132. Elementary Organic Chemistry. Credit 3 hours. This course does not satisfy the organic chemistry prerequisite for Chemistry 350, 354, or 355. Beginning course in organic chemistry especially for students in prenursing curriculum. Prerequisite: Chemistry 101, 102, 109 or equivalent. II.

Chem. 133. Elementary Organic Chemistry. Credit 5 hours. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Prerequisite: Chemistry 105 or equivalent.

Chem. 234. Organic Chemistry. Credit 5 hours. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. Prerequisite: Chemistry 124. II.

Chem. 247. Elementary Physical Chemistry. Credit 4 hours. For premedical students and others not in chemistry and engineering curricula. Lectures and laboratory. Prerequisite: Chemistry 122 and 133; Physics 102, or equivalent. II.

Chem. 342. Physical Chemistry. Credit 3 hours. Introduction to the study of chemical principles. Prerequisite: Chemistry 124; Physics 106, 107 and 108, or two semesters of general physics with concurrent registration in the third semester; credit or registration in Mathematics 143; or equivalents. I.

Chem. 343. Physical Chemistry Laboratory. Credit 1 hour. Quantitative experimental study of chemical principles. Prerequisite: Credit or registration in Chemistry 342. I.

CIVIL ENGINEERING

C. E. 101. Elementary Surveying. Credit 3 hours. Fundamental surveying operations. Prerequisite: General Engineering 101 and credit or registration in Mathematics 123.

C. E. 195. Introduction to Civil Engineering. No credit hours. A series of informal lectures and discussions on the field of civil engineering, including the position and function of the civil engineer, history of civil engineering and a qualitative approach to civil engineering problems. Prerequisite: Sophomore standing in civil engineering.

C. E. 207. Surveying Camp. Credit 5 hours. Topographic surveying and mapping; highway location surveys; land surveying; hydrographic surveying; stream gaging; field astronomy; precise traverse and leveling. Given in summer surveying camp at Camp Rabideau in northern Minnesota. Prerequisite: Civil Engineering 101.

C. E. 210. Properties of Soils. Credit 3 hours. Identification and classification of earth materials; hydraulic and mechanical properties of soils; character of natural soil deposits; and appraisal of methods of subsurface exploration. Laboratory determination of the index properties of soils. Prerequisite: Theoretical and Applied Mechanics 150, Geology 150, and junior standing in engineering or architecture.

C. E. 214. Composition and Properties of Concrete. Credit 2 hours. Properties and uses of cements, aggregates, mixing water, and admixtures; composition and properties of concrete mixtures; field practices in the production of concrete. Laboratory practice in the design and control of quality concrete. Prerequisite: Theoretical and Applied Mechanics 223, or 224, and junior standing in engineering or architecture, or consent of instructor.

C. E. 215. Engineering and Construction Economy. Credit 3 hours. An introduction to engineering and construction economy; fundamentals of engineering and construction costs; engineering and construction economy studies; and mathematics of finance. Prerequisite: Junior standing.

C. E. 261. Theory of Determainate Structures. Credit 3 hours. A study of the fundamental theory of statically determinate structures with applications to the evaluation of reactions, shears, and moments in beams and stresses in trusses for fixed and moving loads; introduction to deflection computations. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

ECONOMICS

Econ. 100. Introduction to Business. Credit 3 hours. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only.

Econ. 102. Principles of Economics I. Credit 3 hours. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. Prerequisite: One year of college work.

Econ. 103. Principles of Economics II. Credit 3 hours. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. Prerequisite: Economics 102.

Econ. 108. Elements of Economics. Credit 3 hours. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. Prerequisite: One year of college work. Not open to those who have had Economics 102 or 103.

Econ. 136. American Economic History. Credit 3 hours. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. Open to freshmen and sophomore only.

Econ. 138. European Economic History. Credit 3 hours. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. Open to freshmen and sophomores only.

Econ. 170. Elements of Statistics. Credit 3 hours. Methods of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credit for Psychology 135, Mathematics 161, or Economics 171. Prerequisite: Economics 102 or 108; sophomore standing.

EDUCATION

Ed. 101. Nature of the Teaching Profession. Credit 2 hours. An orientation course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher.

Ed. 109. Educational Psychology. Credit 3 hours. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. Prerequisite: Psychology 100. II.

Ed. 201. Foundations of American Education. Credit 2 hours. A study of contemporary American public education in the setting of current American culture; confusions and issues with respect to the school program, its purposes, its content, its methods, and its organization are related to confusions and issues with respect to social, economic, and political purposes and organizations, both domestic and international. An attempt is made through the study of these relationships to clarify the contemporary social functions of the American school and teaching profession. Prerequisite: Psychology 100; Education 101. Open only to fourth semester students.

ELECTRICAL ENGINEERING

E. E. 126. Electric Circuits and Fields. Credit 4 hours. Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. Prerequisite: Physics 107; Mathematics 143; credit or registration in Mathematics 345.

ENGLISH

English 101. Introduction to Poetry. Credit 3 hours. Understanding of poetry through the reading and discussion of representative poems. Students with 95 or more credit hours receive only 2 hours credit. This course, plus English 102 and 103, satisfies the humanities requirement in general education.

English 102. Introduction to Drama. Credit 3 hours. Understanding of drama through the reading and discussion of representative plays. The reading list includes selections from Greek, Elizabethan, modern English, continental, and American drama. Students with 95 or more credit hours receive only 2 hours credit.

English 103. Introduction to Fiction. Credit 3 hours. Understanding of fiction through the reading and discussion of representative short stories and novels. The reading list includes Jane Austen's *Pride and Prejudice,* Balzac's *Pere Goriot,* Arnold Bennett's *Old Wives' Tale,* Dostoevski's *Crime and Punishment,* Robert Penn Warren's *All the King's Men* and the anthology *Reading Modern Short Stories.* Students with 95 or more credit hours receive only 2 hours credit.

English 113. American Literature. Credit 3 hours. Classic American authors before the Civil War: an introduction to Franklin, Poe, Emerson, Hawthorne, Melville, Whitman, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 114. American Literature. Credit 3 hours. Classic American authors after the Civil War to the present: an introduction to Mark Twain, James, Dreiser, Hemingway, O'Neill, Frost, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 121. Chief English Writers Before 1800. Credit 3 hours. *Canterbury Tales Utopia,* two plays by Shakespeare, *Paradise Lost, Gulliver's Travels, Tom Jones, Rasselas.* This course, with English 122, is the normal prerequisite to an English major. This course, plus English 122 and 123, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 122. Chief English Writers of the Nineteenth Century. Credit 3 hours. Wordsworth, Byron, Carlyle's *Past and Present,* Arnold's prose and poetry, FitzGerald's *The Rubaiyat of Omar Khayyam,* readings from T. H. Huxley, Browning's poems, and one novel. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 123. Chief Modern English Writers. Credit 3 hours. Conrad, Eliot, Joyce, Lawrence, Shaw, Yeats, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 131. Introduction to Shakespeare. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

FRENCH

French 101. Elementary Course. Credit 4 hours. Grammar, pronunciation, reading of modern authors, composition, and conversation. For students who have no credit in French. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101, without French 102.

French 102. Elementary Course. Credit 4 hours. Continuation of French 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: French 101 or one year of high school French.

French 103. Modern French. Credit 4 hours. Rapid reading of modern authors, syntax, and composition; some conversational practice. Prerequisite: French 102 or two years of high school French.

French 104. Modern French. Credit 4 hours. Continuation of French 103. Prerequisite: French 103 or three years of high school French.

French 201. Introduction to French Literature. Credit 3 hours. Prerequisite: French 104 or four years of high school French. I.

French 202. Introduction to French Literature. Credit 3 hours. Continuation of French 201. Prerequisite: French 104 or four years of high school French. II.

GENERAL ENGINEERING

G. E. 101. Engineering Graphical Communication. Credit 3 hours. Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. Prerequisite: Plane geometry.

G. E. 102. Engineering Geometry. Credit 3 hours. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawings. Prerequisite: General Engineering 101.

G. E. 107. Architectural Projections. Credit 2 hours. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. Prerequisite: Plane geometry.

G. E. 108. Architectural Projections. Credit 2 hours. Shades and shadows; oblique, isometric, and perspective drawings; developments. Prerequisite: General Engineering 107.

G. E. 111. Advanced Drafting for Civil Engineers. Credit 2 hours. Prerequisite: General Engineering 102, or consent of instructor. I.

G. E. 112. General Engineering Technology. Credit 2 hours. For mechanical engineers. Prerequisite: General Engineering 102 or consent of instructor. II.

G. E. 210. Industrial Production Illustration. Credit 3 hours. Mechanical and freehand drawings in axonometric, oblique, and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. Prerequisite: General Engineering 102, or 107 and 108.

G. E. 212. Graphical Calculation. Credit 1 hour. Use of various types of slide rules with special attention to the log-log scales; rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper, construction and use of nomographs or aligning charts. For students in engineering; accepted as an approved elective in all engineering curricula. Prerequisite: General Engineering 101 or equivalent; Mathematics 123.

GEOGRAPHY

Geog. 101. Elements of Geography. Credit 5 hours. The geographic point of view; elements of physical landscape; planetary relations, weather, climate, climatic regions, landforms, natural resources. Geography 101 and 111 meet the general education requirement in physical sciences, and Geography 101 and 104 meet the general education requirement in social sciences, in the College of Liberal Arts and Sciences. Lectures and quiz. Students with 95 or more credit hours receive only 4 hours credit.

Geog. 104. World Regional Geography. Credit 3 hours. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Geography 101 or consent of instructor.

Geog. 105. Introductory Economic Geography. Credit 3 hours. Man's utilization of the major economic resources of the world from the standpoint of geographic patterns. Primarily for commerce students, but open to others. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 111. Intoductory Meterology. Credit 3 hours. The atmosphere; its composition, functions, and behavior in the production of various weather types; air masses; application to present-day activities. Prerequisite: Geography 101 or consent of instructor.

Geog. 114. Conservation of Natural Resources. Credit 3 hours. Elements of the conservation of natural resources (soils, water, biotic, mineral, recreational) with special emphasis given to the general principles of conservation as they apply to the United States. Prerequisite: Sophomore standing. II.

Geog. 123. Geography of Illinois. Credit 3 hours. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. Prerequisite: Geography 101 or 104, or consent of instructor. II.

GEOLOGY

Geol. 101. Physical Geology. Credit 4 hours. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. Geology 101 and 102 meet the general education requirement in the physical sciences. Students with 95 or more credit hours receive only 3 hours credit.

Geol. 102. Historical Geology. Credit 4 hours. Evolution of the earth and its life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Geology 101 or equivalent.

Geol. 110. Field Work. Credit 2 hours. Field observation in St. Francois Mountains and adjacent parts of Missouri and Illinois. (During spring vacation.) Two three-hour class meetings to be arranged. Credit is given only on completion of a satisfactory written report. Prerequisite: Geology 101, 150, or Physical Science 102.

Geol. 131. Mineralogy. Credit 4 hours. A systematic study of minerals. The nature of minerals as crystalline materials, and their geologic relations are emphasized. Crystal models, crystals, and the common non-silicate minerals are studied in the laboratory. Lecture and laboratory. Prerequisite: One semester of college chemistry. I.

Geol. 132. Mineralogy. Credit 4 hours. A systematic study of minerals and rocks. The geologic relationships of minerals and rocks are emphasized. The common silicate minerals and the important varieties of rocks are studied in the laboratory. Lecture and laboratory. Prerequisite: Geology 131. II.

Geol. 150. Geology for Engineers. Credit 3 hours. Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

German 101. Elementary Course. Credit 4 hours. Oral practice, reading, and grammar for beginners. Not open to students who have high school credit in this language. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102.

German 102. Elementary Course. Credit 4 hours. Continuation of German 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German.

German 103. Intermediate Course. Credit 4 hours. Modern narrative prose. Oral practice and sight reading. Prerequisite: German 102, two years of high school German, or equivalent.

German 104. Intermediate Course. Credit 4 hours. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. Prerequisite: German 103, three years of high school German, or equivalent.

German 113. Practice in Conversation. Credit 2 hours. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104. I.

German 210. Masterpieces of German Literature. Credit 3 hours. Introduction to German literature, in subjects, forms, and ideals. Prerequisite: Two years of college German, or equivalent. II.

HISTORY

Hist. 111. History of Western Civilization to 1815. Credit 4 hours. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the Social Science requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit. I.

Hist. 112. History of Western Civilization from 1815 to the Present. Credit 4 hours. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. II.

Hist. 131. Histoy of England to 1714. Credit 4 hours. A survey of the political and constitutional, social and economic, church and cultural, and imperial history of the British people from the beginning of English history through 1714. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit. I.

Hist. 132. History of England from 1714 to the Present. Credit 4 hours. A survey of the political and constitutional, social and economic, diplomatic and imperial, and cultural history of the British people from 1714 to the present. Students with 95 or more credit hours receive only 3 hours credit. II.

Hist. 151. History of the United States to 1865. Credit 3 hours. Colonial foundations, movement for independence, early years of the Republic. Prerequisite: Sophomore standing. 1.

Hist. 152. History of the United States from 1865 to the Present. Credit 3 hours. A century of national life and organization. Prerequisite: Sophomore standing.

Hist. 181. The Ancient World. Credit 3 hours. Ancient empires and Greece. Prerequisite: Sophomore standing. I.

Hist. 182. The Ancient World. Credit 3 hours. Rome. Prerequisite: Sophomore standing.II.

HUMANITIES

Humanities 101. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities. I.

Humanities 102. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature and classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 102 in addition to English 101, 102, or 103. Prerequisite: Humanities 101. II.

Humanities 151. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World on the topics of man's fate and his personal adjustment to life. This course, plus Humanities 152, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing or exemption from Rhetoric 102. I.

Humanities 152. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World in relation to the state and society. This course, plus Humanities 151, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing or exemption from Rhetoric 102. II.

HYGIENE

Hygiene 104. Personal and Community Hygiene. Credit 2 hours. This course covers basic principles of hygiene. Especially recommended for those going into teaching, occupational therapy, social work, etc. Students with 95 or more credit hours receive only 1 hour credit.

Hygiene 110. Public Health. Credit 2 hours. Material presented deals with information about community public health problems and the program designed to prevent disease and promote health education. This is especially valuable for all people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

MANAGEMENT

Management 101. Industrial Organization and Management. Credit 3 hours. Organization plans, administrative policies, and management problems with special attention to manufacturing units. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

MARKETING

Marketing 101. Principles of Marketing. Credit 3 hours. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

MATHEMATICS

Math. 101. Basic Mathematics. Credit 3 hours. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. For Liberal Arts and Science students only. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include one year of algebra and one year of plane geometry. II.

Math. 102. Basic Mathematics. Credit 3 hours. Continuation of Mathematics 101. Prerequisite: Mathematics 101. I.

Math. 103. Introduction to College Algebra. Credit 3 hours. Fundamental operations, simple equations, factoring, fractions, exponents, radicals, linear equations in more than one variable, graphing, quadratic equations in one unknown. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

Math. 108. Elementary Plane Geometry for Veterans. No credit. This course deals with the usual topics of high school geometry. It is designed as a refresher course for those who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce and Engineering through this course.

Math. 109. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. Prerequisite: Consent of the department. I.

Math. 110. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. Prerequisite: Mathematics 109. II.

Math. 111. Algebra. Credit 5 hours. Students having 1½ or more units of high school algebra may not take this course unless they have the approval of their college office. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Entrance algebra, 1 unit and plane geometry, 1 unit. Required for students in Architecture deficient in algebra. Other students admitted only by consent of their college office and the mathematics Department.

Math. 112. College Algebra. Credit 3 hours. Theory of quadratic equations, progressions, binomial theorem, permutations, combinations, determinants, introduction to the theory of equations, logarithms. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 114. Plane Trigonometry. Credit 2 hours. Identities, equations, addition formulas and derived relations, solution of right and oblique triangles, radian measure, inverse functions. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 123. Analytic Geometry. Credit 5 hours. Geometrical properties of curves and surfaces, coordinate systems, translation and rotation of axes, higher plane curves, parametric equations. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 112 and 114.

Math. 133. Calculus. Credit 3 hours. First course for students of mathematics and engineering. Theory of limits, differentiation and integration of standard algebraic and trigonometric forms, integration as a process of summation, applications. Prerequisite: Mathematics 123.

Math. 143. Calculus. Credit 5 hours. Second course for students of mathematics and engineering. Integration of rational fractions, integration by parts, series and expansion of functions, hyperbolic functions, partial differentiation, multiple integrals, applications. Prerequisite: Mathematics 133.

Math. 161. Statistics. Credit 3 hours. An Elementary course in the basic concepts of probability and statistics, Arrangement and analysis of raw data, hypothesis testing, confidence limits and method of least squares. Prerequisite: Mathematics 112; sophomore standing. II.

Math. 263. Statistics in Engineering and Physical Sciences. Credit 3 hours. A first course in the use of statistical methods for interpreting the results of experiments. Applications to engineering and the physical sciences are emphasized. Prerequisite: One year of calculus. II.

Math. 343. Advanced Calculus. Credit 3 hours. The course includes the vector calculus, differential and integral calculus of functions of several variables, infinite series, power series, and line and surface integrals. Prerequisite: One year of calculus.

Math. 345. Differential Equations and Orthogonal Functions. Credit 3 hours. Theory of solving the standard elementary differential equations and application of these. Power series, solutions of second order equations and operational methods are included. A brief introduction is given to partial differential equations and Fourier series methods. Prerequisite: One year of calculus.

MECHANICAL ENGINEERING

M. E. 182. Manufacturing Processes. Credit 3 hours. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. Prerequisite: General Engineering 101, sophomore standing.

M. E. 183. Materials Casting. Credit 3 hours. Casting as a process of fabrication; the molding process including machine molding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. Prerequisite: General Engineering 101; sophomore standing.

M. E. 184. Metal Processing. Credit 3 hours. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. Prerequisite: General Engineering 101; credit or registration in Integral Calculus and Physics 108.

M. E. 209. Thermodynamics and Heat Transfer. Credit 3 hours. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles and processes involving transfers of mass and energy. Basic laws of heat transfer. Prerequisite: Physics 107, Mathematics 142 or 143.

M. E. 221. Mechanics of Machinery. Credit 5 hours. Linkages, cams, and gears; belts, ropes, and chains; velocities, accelerations, and inertia forces in machines; vibrations and critical speeds; balancing of engines; principle of the gyroscope. Prerequisite: T.A.M. 156 or registration in Theoretical and Applied Mechanics 211.

MILITARY SCIENCE AND TACTICS

Mil. Sci. 101. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Organization of the Army and ROTC; individual weapons and marksmanship, and leadership, drill and command. Prerequisite: Military Science department approval. I.

Mil. Sci. 102. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: American military history, and leadership, drill, and command. Prerequisite: Military Science 101 or equivalent. II.

Mil. Sci. 103. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Map and aerial photographs; basic tactics; and leadership, drill, and command. Prerequisite: Military Science 102 or equivalent. I.

Mil. Sci. 104. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Crew-served weapons and gunnery; elementary communications and leadership, drill, and command. Prerequisite: Military Science 103 or equivalent. II.

MUSIC

Music 100. Rudiments of Theory. Credit 2 hours. Notation, scales, intervals, chords, terminology.

Music 130. Introduction to the Art of Music, I. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For non-music students only. I.

Music 131. Introduction to the Art of Music, II. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For non-music students only. II.

Music 150. Music Ensemble. Credit ½ hour. Band, Orchestra, Chorus. Admission by consent of director. This course may be repeated to earn a maximum of 2 semester hours of credit.

PHARMACY

Pharmacy 100. Introductory Pharmacy. Credit 2 hours. An orientation course covering the scope, historical development and literature of pharmacy. I.

Pharmacy 102. Pharmaceutical Processes. Credit 3 hours. A study of pharmaceutical processes and manipulations, definitions, nomenclature. Laboratory work consists of experiments to illustrate the important pharmaceutical technics. Prerequisite: Pharmacy 100. II.

PHILOSOPHY

Phil. 101. Introduction to Philosophy. Credit 3 hours. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. Phil. 101, 102, 105 form an approved humanities sequence in Liberal Arts and Sciences. Credit 3 hours. Prerequisite: Sophomore standing.

Phil. 102. Logic. Credit 3 hours. Reasoning, detection of fallacies, evidence. Prerequisite: Sophomore standing.

Phil. 105. Moral Ideas and Practice. Credit 2 hours. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

PHYSICAL EDUCATION FOR MEN

P. E. M. 101, 102, 103, 104. Prescribed Exercises. Credit 1 hour. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P. E. M. 101. Students enrolling for the second, third, or fourth time should register for P. E. M. 102, 103, 104, respectively.

P. E. M. 106. Developmental Activities. Credit 1 hour. Activities that contribute to the development and maintenance of physical fitness according to social and hygienic standards.

P. E. M. 107. Beginning Swimming. Credit 1 hour. For non-swimmers (inability to swim 100 yards). Students must have 8:00 and 9:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 109. Advanced Swimming. Credit 1 hour. For swimmers (ability to swim at least 100 yards). Student must have 8:00, 9:00 and 10:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 112. Individual Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 113. Double Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 114. Apparatus Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 117. Boxing. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 118. Wrestling. Credit 1 hour. Skill, knowledge, attitudes, and conditions.

P. E. M. 120. Personal Defense Activities. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 122. Individual Athletics. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 123. Weight Lifting. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 129. Volleyball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 130. Basketball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 132. Archery. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 136. Badminton. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 139. Backyard Sports. Credit 1 hour. Skills, knowledge, and conditions.

P. E. M. 140. Boating and Fishing. Credit 1 hour. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities or approval of the Director of Physical Education. Students must furnish their own personal equipment, but should purchase no equipment until after the first meeting of the class. Boats, canoes, life jackets will be furnished.

P. E. M. 142. Ballroom Dance. Credit 1 hour.

P. E. M. 143. American Square Dance. Credit 1 hour.

P. E. M. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors.

P. E. M. 151. Beginning Basketball. Credit 2 hours. Introductory skills, rules and strategy. For physical education majors.

P. E. M. 152. Beginning Football. Credit 2 hours. Introductory skills, rules and strategy. For physical education majors.

P. E. M. 153. Fitness Programs. Credit 2 hours. Physical fitness tests; calisthenics, medicine ball, bulldozer, grass, all-out and locomotor exercises; leadership techniques. For physical education majors.

P. E. M. 154. Swimming. Credit 2 hours. Crawl, back, breast, and side strokes; diving; life saving. To be taken with Physical Education for Men 153.

P. E. M. 155. Gymnastics and Wrestling. Credit 2 hours. Tumbling, apparatus stunts, and wrestling skills.

P. E. M. 156. Track and Field and Baseball. Credit 2 hours. Track events, field events, and baseball skills; rules.

P. E. M. 209. History of Sports. Credit 3 hours. Development of sports and physical education in Europe and United States since 1750. For physical education majors only.

RECREATION

Recreation 170. Outdoor Recreational Sports. Credit 2 hours. Soccer, touch football, volleyball, softball, speedball.

Recreation 171. Indoor Recreational Sports. Credit 2 hours. Badminton, handball, paddle tennis, squash, racquets, table tennis, weight lifting.

Recreation 174. Camp Counseling. Credit 3 hours. Objectives, administration, techniques, activity programs, evaluation.

Recreation 176. Principles of Recreation. Credit 3 hours. History of leisure and recreation; concepts of play and recreation; major recreation agencies.

PHYSICAL EDUCATION FOR WOMEN

P. E. W. 100. Conditioning Activities. Credit 1 hour.

P. E. W. 102. Modified Activities. Credit 1 hour. Prescribed recreational sports, relaxation, and exercise. Prerequisite: Recommendation from the Department of Health Service.

P. E. W. 105. Elementary Rhythms. Credit 1 hour. Beginning dance techniques.

P. E. W. 106. Intermediate Rhythms. Credit 1 hour. Intermediate dance techniques, solo and group dance compositions. Prerequisite: Physical Education for Women 105 or consent of instructor.

P. E. W. 110. Elementary Swimming. Credit 1 hour.

P. E. W. 122. Speedball—Volleyball. Credit 1 hour.

P. E. W. 123. Basketball. Credit 1 hour.

P. E. W. 124. Volleyball. Credit 1 hour.

P. E. W. 125. Softball. Credit 1 hour.

P. E. W. 130. Badminton. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 131. Golf. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 132. Bowling. Credit 1 hour.

P. E. W. 134. Tennis—Archery. Credit 1 hour. Personal equipment to be furnished by the student.

P. E. W. 135. Archery. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 140. Boating and Fishing. Credit 1 hour. Open to students who have completed two semesters of physical education, or consent of instructor.

P. E. W. 141. Tumbling and Apparatus Stunts. Credit 1 hour. The side horse, parallel bars, stall bars, buck, etc., are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used.

P. E. W. 142. Ballroom Dance. Credit 1 hour. II.

P. E. W. 143. American Square Dance. Credit 1 hour.

P. E. W. 144. Elementary Folk Dance. Credit 1 hour.

P. E. W. 150. Professional Orientation. Credit 2 hours.

P. E. W. 151. Body Mechanics, Gymnastics and Hockey. Credit 1 hour. For Physical Education majors. I.

P. E. W. 152. Volleyball and Softball. Credit 1 hour. For Physical Education majors. II.

P. E. W. 153. Hockey, Soccer and Basketball. Credit 1 hour. For Physical Education majors. I.

P.E. W. 154. Tumbling and Tennis. Credit 1 hour. For Physical Education majors. II.

Dance 160. Beginning Contemporary Dance. Credit 2 hours. For Physical Education majors. II.

Dance 235. Folk, Square and Social Dance. Credit 2 hours. For Physical Education majors. II.

Dance 236. Folk Dance. Credit 1 hour. For Physical Education majors. II.

PHYSICAL SCIENCE

Phys. Sci. 101. Introduction to the Physical Sciences. Credit 4 hours. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Two units of high school mathematics or consent of the department.

Phys. Sci. 102. Introduction to the Physical Sciences. Credit 4 hours. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Physical Science 101, or Division of General Studies 141.

PHYSICS

Physics 101. General Physics (Mechanics, Heat, Sound). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite: Trigonometry.

Physics 102. General Physics (Electricity, Magnetism, Light, and Modern Physics). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite: Physics 101.

Physics 106. General Physics (Mechanics). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Credit or registration in Mathematics 133.

Physics 107. General Physics (Heat, Electricity, Magnetism). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Physics 106; credit or registration in Mathematics 143. I.

Physics 108. General Physics (Sound, Light, Modern Physics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Credit or registration in Physics 107 and Mathematics 143. II.

Physics 281. Intermediate Atomic Physics. Credit 3 hours. Elementary charged particles, electromagnetic radiation, waves, and particles: hydrogen atom, atomic spectra, and electron distributions: radioactivity, disintegration of nuclei, nuclear energy. Prerequisite: General Physics and Calculus.

Physics 321. Theoretical Mechanics. Credit 4 hours. Laws of motion, vectors, statics, energy and momentum principles for a particle and for systems of particles, motion of a particle under constant forces, plane motion of a rigid body, simple harmonic motion and resonance, impact. Prerequisite: General Physics and Calculus.

Physics 322. Theoretical Mechanics. Credit 4 hours. Continuation of Physics 321. Motion of a particle under a variable force, central field motion, accelerated reference systems, motion of a particle constraints, rotation of a rigid body in three dimensions, vibrating systems and normal coordinates, generalized coordinates. Prerequisite: Physics 321.

Physics 341. Electricity and Magnetism. Credit 4 hours. Lectures, problems, and laboratory. This course is fundamental to advanced courses and should be elected as early as possible by those intending to specialize in physics. Fundamental laws logically developed and summarized in Maxwell's equations. Forces and energies associated with electric and magnetic properties of matter. Generation and propagation of electromagnetic waves. Prerequisite: Physics 107 and Calculus. I.

Physics 342. Electricity and Magnetism. Credit 4 hours. Continuation of Physics 341. Boundary conditions and special methods in boundary value problems; interpretation of dielectric and magnetic properties of matter from the point of view of atomic and crystalline properties; use of complex notation in circuit problems; coupled circuits; non-linear circuits; transmission lines; radiation from antennas; transmission and reflection of electromagnetic waves. Prerequisite: Physics 341.

Physics 360. Thermodynamics. Credit 3 hours. The first, second, and third laws of thermodynamics; the properties of the entropy, enthalpy free energy, and internal energy functions; reversible and irreversible processes; applications to homogeneous and hetrogeneous systems; chemical reactions and the mass action law. Prerequisite: General Physics and Calculus.

Physics 362. Kinetic Theory and Statistics. Credit 3 hours. A lecture and problem course presenting the fundamentals of kinetic theory and an elementary introduction to statistical mechanics. Topics covered include equations of state, the distribution law, viscosity, thermal conduction, diffusion, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistiçs and applications. Applications are discussed. Prerequisite: Physics 360 or consent of instructor.

Physics 381. Atomic Physics. Credit 3 hours. A lecture and problem course presenting our modern knowledge of the nature and properties of electrons, light quanta, atoms, and molecules. Topics include the atomic nature of matter, the properties of free electrons, photons and their interaction with matter, atomic spectra and structure, molecular spectra and structure, an introduction to the ideas of quantum mechanics, binding in molecules and crystals, and an introduction to some solid state phenomena. Prerequisite: General Physics and Calculus.

Physics 382. Nuclear Physics. Credit 3 hours. A lecture and problem course presenting our modern knowledge of the properties of nuclear particles, natural and artificial radioactivity, laboratory equipment for producing and studying high energy particles, nuclear disintegration, the interaction of nuclear particles with each other and with matter, cosmic rays, mesons and recent developments in high energy nuclear physics, and the application of nuclear phenomena to some practical problems. Prerequisite: Physics 381.

POLITICAL SCIENCE

Pol. Sci. 103. Introduction to Political Science. Credit 3 hours. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: Scope and method of political science, constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy.

Pol. Sci. 104. Introduction to International Politics. Credit 3 hours. This is designed as a survey course. Topics to be covered will include the following: The development of the world system of states; the international political and economic struggle for power; the determination and conduct of foreign policy; problems involved in maintaining peace, and organizations devoted to its maintenance.

Pol. Sci. 150. American Government: Organization and Powers. Credit 3 hours. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments in state and nation. Prerequisite: Sophomore standing.

Pol. Sci. 151. American Government: Functions. Credit 3 hours. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power, regulation of commerce, communications, and busineess; promotion of social and economic welfare; current problems. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

PSYCHOLOGY

Psych. 100. Introduction to Psychology. Credit 4 hours. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. Prerequisite: Second semester freshman standing.

Psych. 125. An Introduction to the Fields of Psychology. Credit 4 hours. An introduction to the basic fields of psychology, including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. Students taking this course may not take Psychology 220 at the Urbana campus for credit. Prerequisite: Psychology 100, or equivalent, or junior standing. I.

Psych. 135. Statistical Methods in Psychology. Credit 3 hours. Application of elementary statistical methods to psychological data. No credit for this course will be given to students who receive credit for Economics 170 or Mathematics 161. Prerequisite: Psychology 100. II.

Psych. 145. Industrial Psychology. Credit 3 hours. A consideration of socio-psychological principles of behavior in business and industry and of the scientific methods of investigation in this area, and a survey of specific methods of personnel technology. Credit is not given for both Psych. 145 and Psych. 245 at Urbana. Prerequisite: Psychology 100. II.

Psych. 150. Personality and Human Relations. Credit 3 hours. An introduction to the study of personality in relationship to the social environment. Application of psychological principles to social problems. Prerequisite: Psychology 100 or equivalent. II.

RHETORIC

Rhetoric 100. Freshman Remedial Rhetoric and Composition. No credit. Intensive review of fundamentals, with considerable practice in composition. Open to students who fail the placement test for admission to Rhetoric 101. Students passing this course will be admitted to Rhetoric 101 without further examination.

Rhetoric 101. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: A passing grade on the placement examination or in Rhetoric 100.

Rhetoric 102. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

Rhetoric 133. Principles of Composition. Credit 3 hours. Practice in composition with emphasis on organization, paragraphing and sentence structure. For the student whose career requires competence in writing clear, precise prose as an adjunct to other professional activity. Credit is not given for Rhetoric 133 in addition to Rhetoric 143. Prerequisite: Rhetoric 102 or equivalent. I.

Rhetoric 143. Intermediate Expository Writing. Credit 3 hours. Practice in expository types, with emphasis on style and critical analysis. Recommended for rhetoric majors. Credit is not given for Rhetoric 143 in addition to Rhetoric 133. Prerequisite: A grade of "A" or "B" in Rhetoric 102 or consent of instructor.

Rhetoric 144. Narrative Writing. Credit 3 hours. Practice in description, narrative sketches, stories. Prerequisite: Rhetoric 101 and 102; sophomore standing. II.

Rhetoric 151. Business Letter Writing. Credit 3 hours. Study of the correspondent's problems in business and practice in writing letters, with emphasis on organization, persuasion, and presentation from the reader's point of view. For the student whose career will require competence in writing letters. Prerequisite: Rhetoric 101 and 102.

SOCIAL SCIENCES

Soc. Sci. 111. The Individual in Society. Credit 4 hours. A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 112. Bases of American Life. Credit 4 hours. A general education course designed to acquaint the student with the physical, economic, political, and social developments of the United States and to equip him for intelligent active participation in local and national life. Credit is not given for this course to a student with credit, or concurrent registration, in Political Science 150 or 151 or History 151 or 152. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 113. World Patterns and World Problems. Credit 4 hours. A general education course designed to bring the student to an understanding of the geographic, economic, and political bases of the present world situation. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 116. Family Living. Credit 4 hours. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. Prerequisite: Sophomore standing or consent of instructor.

SOCIOLOGY AND ANTHROPOLOGY

SOCIOLOGY

Sociol. 100. Introduction to Sociology. Credit 3 hours. Introductory anaylsis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. Prerequisite: Sophomore standing.

Sociol. 130. Society and Individual Development. Credit 3 hours. Nature of person and relation to institutions, social order, and development. Prerequisite: Sociology 100. I.

Sociol. 140. Social Control. Credit 3 hours. The methods and techniques of group social control of individuals in small groups, societies, and large publics; the innovations in methods of social control resulting from the development of the new mass media of communication. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152. II.

Sociol. 276. Sociology of the City. Credit 3 hours. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

ANTHROPOLOGY

Anthrop. 102. Introduction to Anthropology: The Origin of Man and Culture. Credit 3 hours. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. I.

Anthrop. 103. Introduction to Anthropology: The Growth of Culture. Credit 3 hours. An introduction to and survey of the development of cultures with special attention to invention, diffusion, adaptation, integration, and other processes of cultural growth as illustrated by primitive and native populations of the world. Recommended though not required to be taken with Anthropology 102 as a survey of the field of anthropology. II.

SPANISH

Spanish 101. Elementary Spanish. Credit 4 hours. For students who have no credit in Spanish. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for Spanish 101 without 102

Spanish 102. Elementary Spanish. Credit 4 hours. Continuation of Spanish 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish.

Spanish 103. Intermediate Spanish. Credit 4 hours. Rapid reading, review of grammar, composition, conversation. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 104. Intermediate Spanish. Credit 4 hours. Continuation of Spanish 103. Prerequisite: Spanish 103 or three years of high school Spanish.

Spanish 113. Elementary Composition and Conversation. Credit 2 hours. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 201. Introduction to Spanish Literature. Credit 3 hours. Reading of representative authors of Spain. Prerequisite: Spanish 104 or four years of high school Spanish. I.

Spanish 202. Introduction to Spanish American Literature. Credit 3 hours. Reading of representative authors of Spanish America. Prerequisite: Spanish 201 or consent of instructor.

SPEECH

Group Remedial Speech. No credit hours. Students with articulatory problems, particularly those with foreign dialects, may register for this course at the Student Counseling Service, Room 303, in advance of the dates specified. Prerequisite: Consent of the instructor.

Speech 101. Principles of Effective Speaking. Credit 3 hours. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: A passing grade in Rhetoric 101 placement examination or a passing grade in Rhetoric 100.

Speech 105. Voice and Articulation. Credit 2 hours. A drill course for the improvement of the normal speaking voice. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Speech 107. Parliamentary Procedure. Credit 2 hours. Principles and practice of parliamentary procedure. Students with 95 or more credit hours receive only 1 hour credit.

Speech 111. Business and Professional Speaking. Credit 2 hours. Study, preparation, and presentation of the chief types of business speeches, with special attention to conferences, sales talks, interviews, job applications. Credit 2 hours. Prerequisite: Speech 101; sophomore standing.

Speech 117. Argumentation. Credit 3 hours. Analysis, brief drawing and research; types of evidence, methods of reasoning, and refutation; study of types of debate and a series of speechs and debates upon the current national proposition. Prerequisite: Speech 101; sophomore standing. I.

Speech 141. Oral Interpretation of Literature. Credit 2 hours. Principles of interpretation, analysis, and oral reading of prose literature, dramatic literature, and verse. Students with 95 or more credit hours receive only 1 hour credit.

Speech 161. Fundamentals of Acting. Credit 3 hours. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. Prerequisite: Credit or commitment registration in Speech 141. II.

Speech 164. Radio Speaking. Credit 2 hours. Preparation and presentation of the chief types of radio speeches, and of the interview, round table, and discussion; microphone experience. Prerequisite: Consent of instructor. II.

THEORETICAL AND APPLIED MECHANICS

T. A. M. 150. Analytical Mechanics (Statics). Credit 2 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic states, forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. Prerequisite: Registration in Mathematics 143.

T. A. M. 151. Analytical Mechanics (Statics). Credit 3 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic statics, moment diagrams, virtual work, forces due to friction centroid. Prerequisite: Registration in Mathematics 143.

T. A. M. 154. Analytical Mechanics (Statics and Dynamics). Credit 4 hours. A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. Prerequisite: Registration in Mathematics 143.

T. A. M. 156. Analytical Mechanics (Statics and Dynamics). Credit 5 hours. A combination of Theoretical and Applied Mechanics 150 and 211. Prerequisite: Registration in Mathematics 143.

T. A. M. 171. Elements of Mechanics (Statics). Credit 3 hours. Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. Prerequisite: Mathematics 123.

T. A. M. 172. Strength of Materials. Credit 3 hours. Relationships between external forces acting on beams and the stresses produced, shear, moment, slope and deflection diagrams, moment of inertia; columns. For architects only. Prerequisite: Theoretical and Applied Mechanics 171.

T. A. M. 211. Analytical Mechanics (Dynamics). Credit 3 hours. Displacement, velocity, and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation, rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, impulse and momentum. Prerequisite: Theoretical and Applied Mechanics 150 or 151.

T. A. M. 221. Elementary Mechanics of Deformable Bodies. Credit 3 hours. Relationships between external forces acting on elastic bodies and the stresses and deformations produced; tension and compression members; members subjected to torsion and to bending; columns; combined stresses; properties of materials. Prerequisite: Theoretical and Applied Mechanics 150, 151, 154 or 156.

T. A. M. 223. Mechanical Behavior of Solids. Credit 1 hour. Tests of steel, cast iron, aluminum alloys, concrete and wood; determination of such mechanical properties as strength, hardness, ductility, energy, resistance; engineering significance of mechanical properties. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

T. A. M. 224. Behavior of Materials. Credit 3 hours. Introduction to atomic and molecular structure of metals, cement, concrete, plastics, ceramics, and glass; response of these materials to rapid, steady, and repeated loads at various temperatures (and environments) in terms of rheological models; fracture behavior of specific materials, i.e., stress rupture, brittle fracture, and fatigue of metals and concrete. Prerequisite: Theoretical and Applied Mechanics 221.

Index

Accountancy courses, 91
Activities, extra-curricular, 46
  Student fee, 35
Administrative officers, 11
Admission, 23
  Examinations, 32
  Requirements, 24
    Non-resident students, 30
    Special admissions, 33
    Special scholastic requirements, 30
    Subjects for specific college and curricula, 26
    Transfer students, 28
Advanced Placement, 33
Aeronautical Engineering, curriculum, 64
Anthropology courses, 109
Architectural Engineering, curriculum, 70
Architecture, 68
  Courses, 91
  Curriculum, 70
  Electives, 69
Army Reserve Officers' Training Corps, 88
  Courses, 102
Art, 71
  Courses, 92
  Curriculum, 71
Athletics, 51

Biological Science courses, 92
Board of Trustees, 10
Bookstore, 54
Business Law, 93

Calendar, 12
Ceramic Engineering curriculum, 65
Chemical Engineering, curriculum, 77
Chemistry courses, 93
  Curriculum, 77
Chicago Departments Committee, 10
Civil Engineering, courses, 95
  Curriculum, 65
Commerce and Business Administration, College of, 57
  Commerce and Law, 58
  Commercial teaching, 59
  Curriculum, 61
  Electives, 58
  Pre-journalism, 59
  Requirements for all commerce students, 60
  Requirements for graduation, 57
Courses of instruction, 91
  Required of all students, 55
  Extramural, 5, 6

Dean of Men, 42
Dean of Students, 42
Dean of Women, 42
Debating, 50
Dentistry, pre-dental curriculum, 79

Economics courses, 95
Education courses, 96
Electives, Architecture, 69
  Commerce, 58
  Liberal Arts and Sciences, 75
Electrical Engineering courses, 96
  Curriculum, 65
Employment, student, 40
Engineering, College of, 62
  Aeronautical, 64

Ceramic, 65
Civil, 65
Common program for freshmen, 64
Electrical, 65
Engineering Mechanics, 66
Engineering Physics, 66
General Engineering, 66
Industrial, 67
Liberal Arts combined program, 78
Mechanical, 67
Metallurgical, 67
Requirements for graduation, 62
Engineering Physics, curriculum, 66
English courses, 96
Examinations, entrance, 32
General education development, 33
Lowest Quarter, 31
Extra-curricular activities, 46

Faculty, 14
Fees, see Tuition and Fees
Food Service, 53
Forestry, curriculum, 78
French courses, 97

General Deposit, 35
General Education Development, 33
General Engineering courses, 97
Curriculum, 66
Geography courses, 98
Geology courses, 98
German courses, 99
Grading system, 55

Health Service, 54
History courses, 99
Home Economics curriculum, 78
Honors, 49
Hospital and Medical Service, 45
Housing, 6
Humanities courses, 99
Hygiene courses, 100

Industrial Engineering, curriculum, 67

Journalism and Communications, pre-journalism curriculum, 59, 79

Law, pre-law curriculum, 58, 80
Liberal Arts and Sciences, College of, 72
Chemistry and Chemical Engineering, 76
Continuation program in nursing, 81
Engineering combined program, 78
Forestry, 78
General curriculum, 72
Home Economics, 78
Occupational Therapy, 82
Nursing, 81
Physics, 82
Pre-dental, 79
Pre-journalism, 79
Pre-law, 80
Pre-medical, 80
Pre-veterinary medicine, 84
Required subjects, 73
Requirements for graduation, 73
Teacher Education, 83
Library, 52
Loan funds, 40

Management, 100
Marketing, 100
Mathematics courses, 100
Mechanical Engineering courses, 102
Curriculum, 67

Medicine, pre-medical curriculum, 80
Metallurgical Engineering, curriculum, 67
Military Science and Tactics courses, 102
Miscellaneous fees, 37
Music, courses, 102

Non-resident students, admission, 30
Nursing, 81
  Continuation program, 81

Occupational Therapy, 82

Pharmacy, courses, 103
Philosophy courses, 103
Physical Education, College of, 85
  Courses, 103
Physical Science courses, 106
Physics courses, 106
Political Science courses, 107
Pre-journalism, curricula, 59, 79
Pre-law, curricula, 58, 80
Psychology courses, 107

Recreation courses, 104
Refunds of fees, 37
Rhetoric courses, 108
R.O.T.C., 8, 88

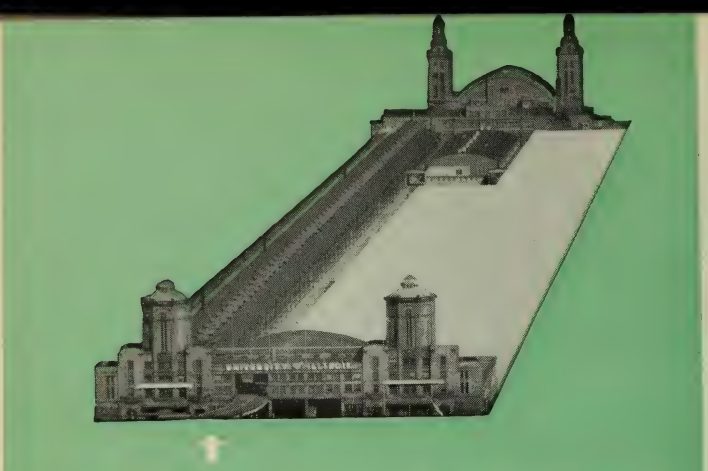
Scholarships, 40
  Edmund J. James, 49
  Military, 39
Selective Service deferment, 40
Semester fees, 35
Social Science courses, 109
Sociology courses, 109
Spanish courses, 110
Special scholastic requirements, admission, 30
Speech Improvement Laboratory, 44
Speech courses, 110
Student Counseling Service, 43
Student Welfare, 41
  Dean of Men, 42
  Dean of Students, 42
  Dean of Women, 42
  Hospital and Medical Service, 45
  Loan funds, 40
  Speech Improvement Laboratory, 44
  Student Counseling Service, 43
  Student Employment, 40
Subjects required for specific colleges and curricula, 26
Summer Session fees, 36

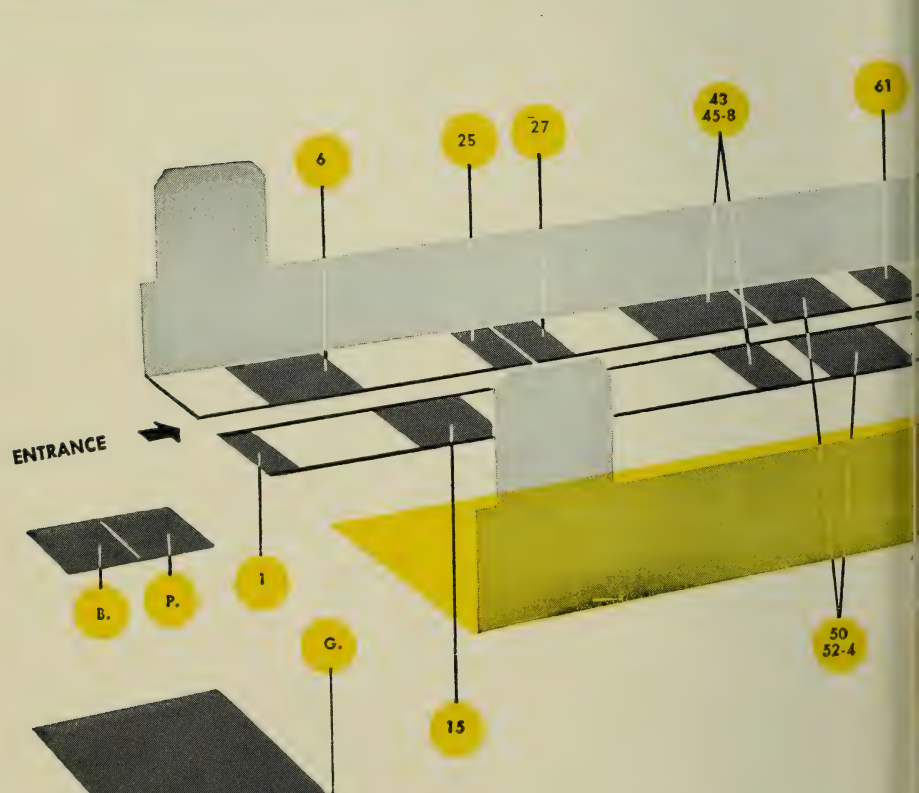
Teacher Education, curricula, 83
Theoretical and Applied Mechanics courses, 111
Transfer students, admission, 28
Tuition and Fees, 35
  Deferred, 37
  General Deposit, 35
  Miscellaneous fees, 37
  Refunds, 37
  Semester fees, 35
  Summer Session fees, 36

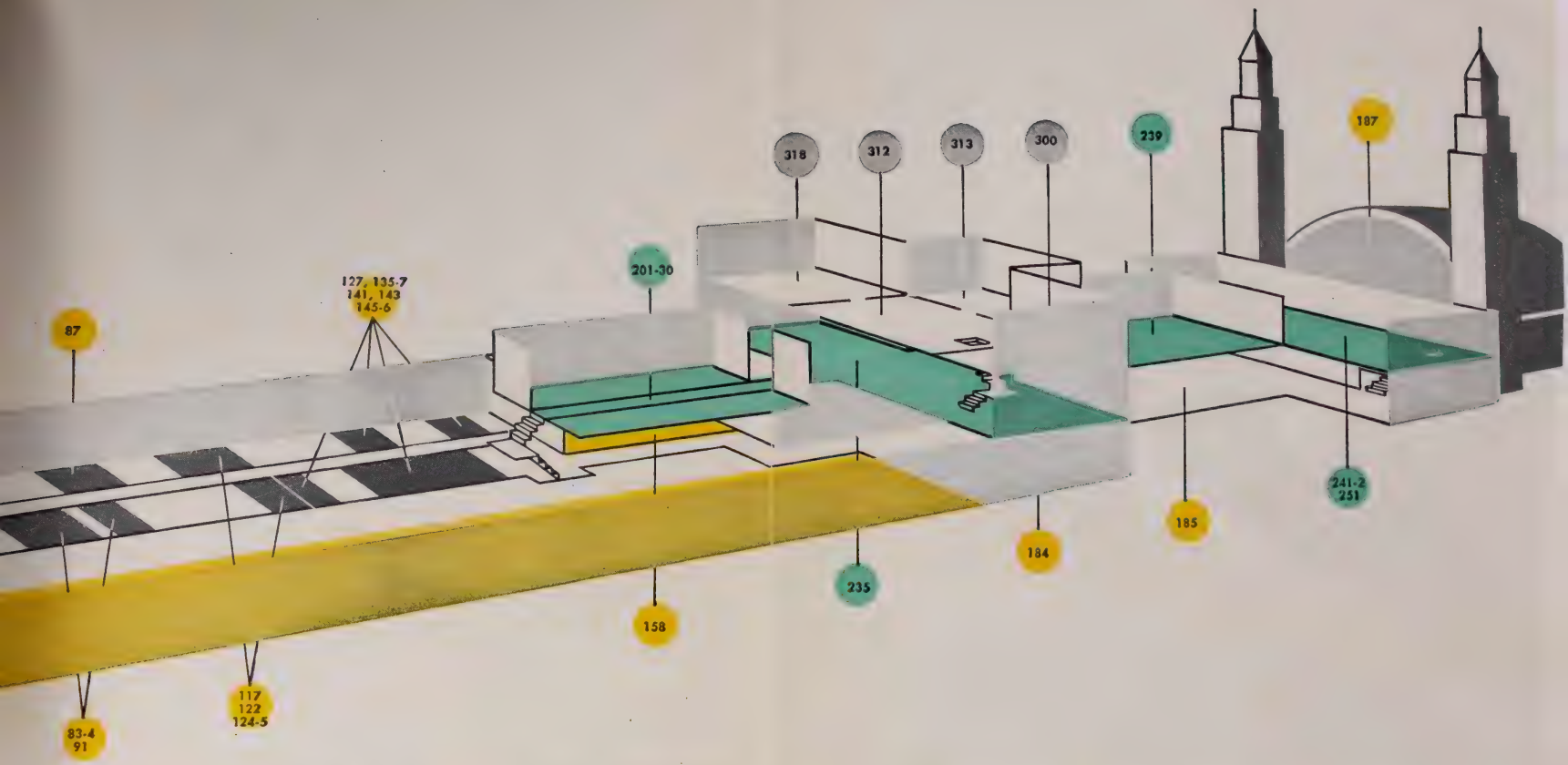
University Services, 52
Urbana, transfer to, 35

Veterans information, 38
Veterinary Medicine, pre-veterinary medicine curriculum, 84

Withdrawal from University, 37




6
25
27
43
45-8
61
ENTRANCE
B.
P.
1
G.
15
50
52-4



ROOM NUMBERS OF DEPARTMENTS AND POINTS OF INTEREST

- B. RESERVE BOOK SECTION
- P. POLICE HEADQUARTERS
- G. MEN'S GYM
- 1 INFORMATION DESK
- 6 SNACK BAR AND LOUNGE
- 15 ADMISSIONS AND RECORDS OFFICE
- 25 ASSOC. DEAN OF LAS
- 27 ASSOC. DEAN OF COMMERCE
- 43, 45-8 BIOLOGICAL SCIENCES LABORATORIES
- 50, 52-4 CHEMISTRY LABORATORIES
- 61 CONCRETE TESTING LABORATORY
- 64 MACHINE SHOP
- 70-1, 77 WELDING LABORATORY, FOUNDRY, SAND TESTING LABORATORY
- 83-4, 91 ART ROOMS
- 87 BOOKSTORE
- 117, 122, 124-5 PHYSICS LABORATORIES
- 127, 135-7, 141, 143, 145-6 GENERAL ENGINEERING DRAWING
- 158 PHYSICAL PLANT
- 184 ASSOC. DEAN OF ENGINEERING
- 185 STUDENT CAFETERIA
- 187 AUDITORIUM AND WOMEN'S GYM
- 201-30 LECTURE ROOMS AND CLASSROOMS
- 235 LOUNGE
- 239 LIBRARY
- 241-2, 251 ARCHITECTURE ROOMS
- 300 STUDENT COUNSELING BUREAU
- 312 LOUNGE
- 313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN
- 318 HEALTH SERVICE

university of illinois

chicago undergraduate division

UNIVERSITY OF ILLINOIS

CATALOG

60 - 61

UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

Chicago Professional Colleges

PUBLIC TRANSPORTATION

TO CHICAGO UNDERGRADUATE DIVISION

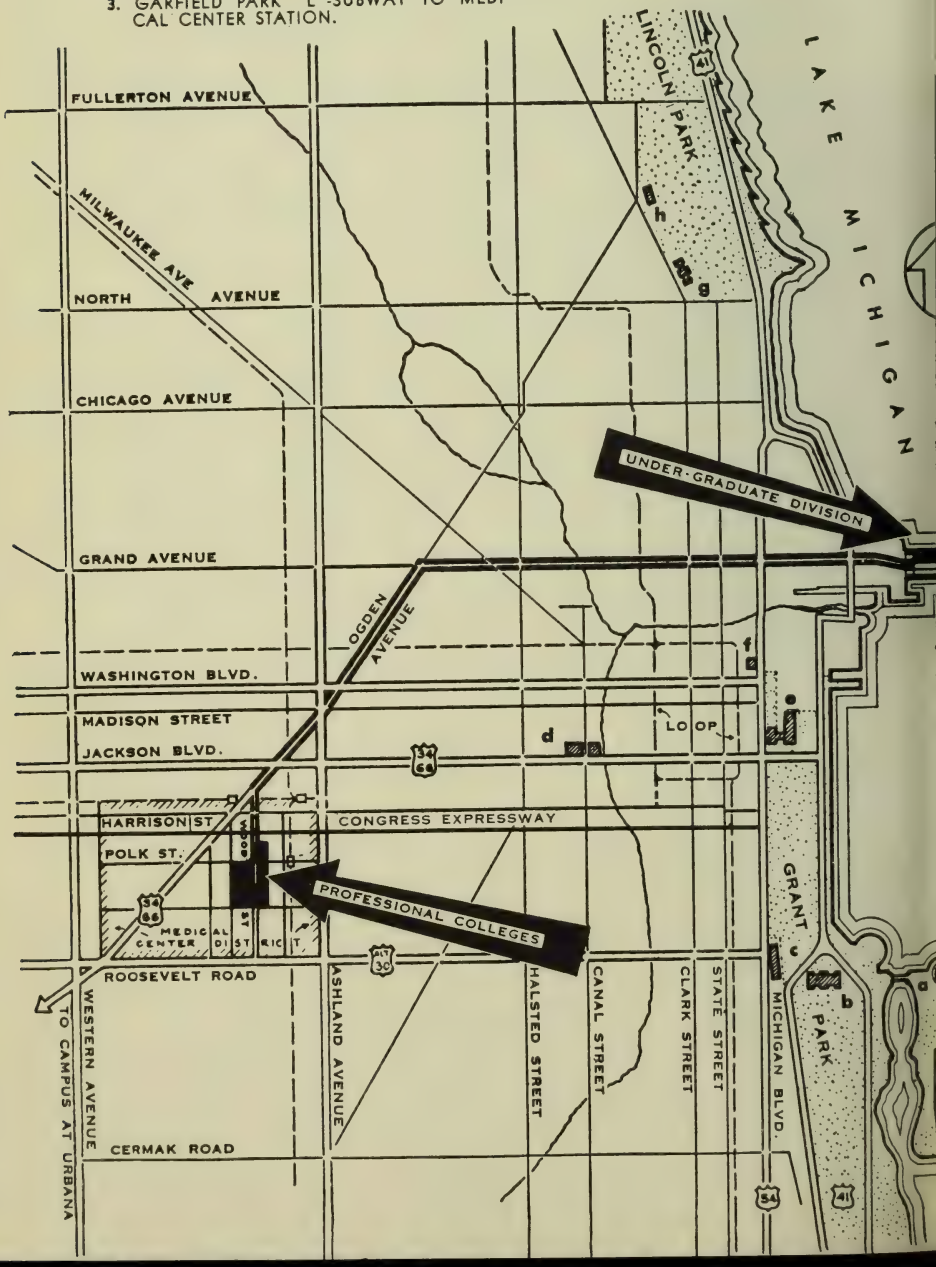
1. NORTH-SOUTH SUBWAY, TRANSFER AT GRAND AVENUE.
2. ANY NORTH-SOUTH BUS LINE, TRANSFER AT GRAND AVENUE.
3. GRAND AVENUE BUS.
4. CANAL-WACKER BUS (FROM LOOP).

TO PROFESSIONAL COLLEGES

1. N. OGDEN AVENUE BUS TO POLK-WOOD STREETS.
2. DOUGLAS PARK "L"-SUBWAY TO POLK STREET.
3. GARFIELD PARK "L"-SUBWAY TO MEDICAL CENTER STATION.

LEGEND

- a ADLER PLANETARIUM
- b CHICAGO NATURAL HISTORY MUSE
- c ILLINOIS CENTRAL R.R. STATION
- d UNION R.R. STATION
- e ART INSTITUTE
- f CRERAR LIBRARY
- g CHICAGO HISTORICAL SOCIETY
- h CHICAGO ACADEMY OF SCIENCES



University of Illinois

Chicago Undergraduate Division

Navy Pier

Chicago

C
IZu3le
1960/61
Cop. 2

Contents

	Page
Your University	4
Board of Trustees	10
Administrative Officers	11
Calendar	12
Faculty	14
Admission	24
Tuition and Fees	40
Veterans' Information	43
Selective Service Deferment	45
Scholarships, Loans and Employment	45
Student Welfare Services	47
Extracurricular Activities	52
University Services	58
ourses Required of All Students	62
ollege of Commerce and Business Administration	65
ollege of Engineering	71
rchitecture and Art	77
ollege of Liberal Arts and Sciences	81
llege of Physical Education	97
my Reserve Officers' Training Corps	100
urses of Instruction	103
ex	129

Your University

The Chicago Undergraduate Division of the University of Illinoi is entering its fifteenth school year. Since 1946 this campus of th University has offered a well-rounded educational program to thou sands of students who have found it to their advantage to live in th Chicago metropolitan area while attending college. The campus i conveniently located on Chicago's Navy Pier, at the foot of Gran Avenue at Lake Michigan. This Division offers work in four college —Commerce and Business Administration, Engineering (includin Architecture, Architectural Engineering, and Art), Liberal Arts an Sciences (including Education), and Physical Education.

In addition, preprofessional courses of study necessary for admi sion to the professional colleges of medicine, dentistry, pharmac veterinary medicine, journalism, law, nursing and occupational the apy are available.

The courses, held during the daytime hours only, are exactly li those offered in the same fields of study on the University of Illino campus at Urbana-Champaign. The schedule of fees and admissi requirements are the same on both campuses.

Excellent instructional facilities are provided in the school's se enty classrooms and thirty-five modern, fully-equipped laboratori A 100,000-volume library, recreational facilities, well-furnish lounges, and food service supplement the academic program. A la gymnasium adjacent to the main building houses the athletic progra The basic courses in Army R.O.T.C. are available on a voluntary ba for men students.

The academic life of the student is supervised by the dean a the staff of the college in which the student enrolls. For most matt of student welfare and activities, the student is advised by the De of Students and his staff. Professional counseling and scientific t ing services are available to students and prospective students throu the Student Counseling Service.

The Chicago Undergraduate Division, through its educatio social, and cultural program, provides its student body with the sa high degree of service which has been so long a part of the tradi of the University of Illinois.

SOME QUESTIONS AND ANSWERS

The University of Illinois welcomes the interest you show by reading this catalogue. The offerings of the Chicago Undergraduate Division are presented in considerable detail in this publication. However, our experience has taught us that there are some questions that are asked more frequently than others.

You will find outlined below some of the items of information most often sought.

• CAN I EARN A DEGREE AT THE CHICAGO UNDERGRADUATE DIVISION?

No, not yet. At the present time this Division offers generally the first two years' work in:

Commerce and Business Administration; Engineering (including two and one-half years of Architecture and one year of Art); Liberal Arts and Sciences (including Teacher Education); Physical Education (professional courses for both men and women). Look on page 9 for a complete listing of the curricula offered.

EXCEPTION:

The complete three-year *premedical* and *prelegal* programs are offered at this Division. Students apply directly to the professional colleges after completing the preparatory program.

NIGHT CLASSES?

Day classes only are offered as part of the program of this Division; however,

EXTRAMURAL COURSES:

The facilities of this Division are used at night for extramural courses offered under the auspices of the Division of Extension. Call the Illini Center, RAndolph 6-7750, for further information.

SCHOOL OF SOCIAL WORK:

Complete graduate degree program is offered in Chicago. Call MOnroe 6-3900, Extension 8351, or write to Room 176, 833 S. Wood Street, Chicago 12, Illinois.

OTHER UNIVERSITY OF ILLINOIS FACILITIES IN CHICAGO, on the Professional Campus are

Medicine
Dentistry
Pharmacy
Nursing
Occupational Therapy
School of Social Work, Chicago Branch
Graduate School (Health Sciences only)

For information call
MOnroe 6-3900
or write to:
University of Illinois
1853 W. Polk Street
Chicago 12, Illinois

- **WHERE IS THE CHICAGO UNDERGRADUATE DIVISION?**
  At the foot of Grand Avenue at Lake Michigan.
- **WHERE IS THE MAIN CAMPUS OF THE UNIVERSITY OF ILLINOIS?**
  In Urbana, about 130 miles south of Chicago.
- **ARE THE COURSES TAUGHT AT THE CHICAGO UNDERGRADUATE DIVISION THE SAME AS THOSE IN URBANA?**
  Yes. One can think of this Division as a section of the Urban campus transplanted to Chicago.
- **TUITION AND FEES:**
  For residents of Illinois, $103 per semester.
  For nonresidents of Illinois, $278 per semester.
  All NEW students pay an additional $5 general deposit.
  Payment in full on the day you register; or deferred fee pla (50% at time of registration, balance within 30 days).
- **FINANCIAL AIDS:**
  Scholarships, loans, part-time employment. See pages 45-46.
- **HOUSING:**
  Since almost all our students live at home, no housing is provide However, students in need of housing may obtain informati from the Dean of Students, Room 313.
- **STUDENT ACTIVITIES:**
  Over fifty different student organizations are active on th campus. See page 52.
- **CORRESPONDENCE COURSES:**
  For information write to
  Division of Extension
  University of Illinois
  Urbana, Illinois
  Correspondence courses are not offered through the facilities this campus.
- **FOREIGN STUDENTS:**
  Foreign students from twenty-seven countries throughout t world are now attending on this campus.
  Special courses in rhetoric and speech are offered for those w do not have proficiency in the English language because of th foreign background. These classes are designed to take care the individual needs of the student. Special advisors assist forei born students evaluate their abilities, plan their programs a interpret regulations applicable to foreign students. This serv

includes assistance on problems of extension of stay, permission to accept employment, border-crossing, and the details of maintaining legal status.

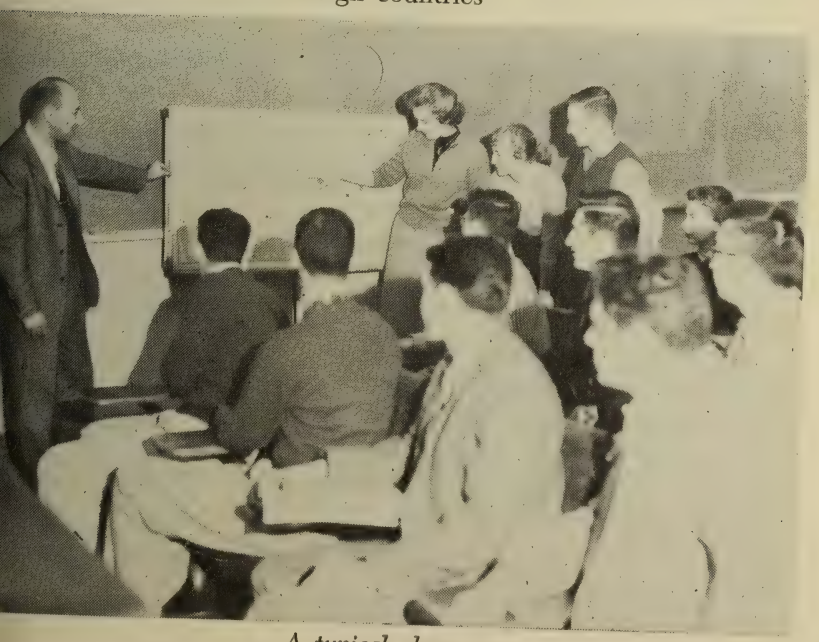
A FEW STATISTICS:

98% of our students are Illinois residents.
The Illinois residents come from the following counties:

Cook	96%
Du Page	2%
Lake	0.8%
15 other counties	1.2%

2% of our students are non-residents of Illinois and they come from:

15 states
1 territory
27 foreign countries



A typical class.

FACILITIES:

70 classrooms
35 modern, fully-equipped laboratories
100,000-volume library
Recreational facilities and lounges
Food service
Gymnasium facilities for men and women
Auditorium facilities for educational, social and special events

Dramatic arts and play production
Radio, television, recording equipment
Bookstore
Student newspaper and photography facilities
Musical instruments for loan
Record library and listening facilities
Health Service

- **ATHLETICS:**
  1. Varsity competition in
     - Basketball
     - Baseball
     - Cross Country
     - Football
     - Golf
     - Gymnastics
     - Soccer
     - Swimming
     - Tennis
     - Track and Field
     - Wrestling
  2. Intramural sports program serves over 1200 students eac semester.
  3. Women's Athletic Association and Orchesis
     - Sports Activities
     - Dance Activities

- **STUDENT COUNSELING SERVICES:**
  Educational and vocational guidance counseling. See pages 49-5

- **CURRICULA IN MUSIC ARE NOT OFFERED ON THIS CAMPUS.**
  (But certain courses are.) See pages 117-118.

- **IS ROTC REQUIRED?**
  Participation is urged, but not required. If started, it must b completed. See pages 100-102.

- **PHYSICAL EDUCATION:**
  Generally, all students must earn credit in four semesters physical education for the bachelor's degree. See page 96.
  Registration in ROTC does not exempt students from the degr requirements in physical education.

• COLLEGES AND CURRICULA OFFERED

LIBERAL ARTS AND SCIENCES

Chemical Engineering
Chemistry
Combined Engineering-Liberal Arts
Forestry (one year only)
General
Home Economics (one year only)
Occupational Therapy
Physics
Speech Correction
Preprofessional curricula:
Predentistry
Prejournalism
Prelaw
Premedicine
Prenursing
Prepharmacy
Preveterinary Medicine

Teacher Education Curricula:
Biology
Chemistry
Deaf and Hard of Hearing
Elementary Education
English
French
Geography
German
Industrial Education
Mathematics
Mathematics and Physical Sciences
Mentally Handicapped Children
Music Education
Physics
Social Studies
Spanish
Speech

COMMERCE

Common program for all Commerce Students
Commercial Teaching

Prejournalism
Prelaw

ENGINEERING

Aeronautical
Agricultural
Ceramic
Civil
Electrical
Engineering Mechanics
Engineering Physics
General

Industrial
Mechanical
Metallurgical
Mining
Sanitary
Combined Liberal Arts-Engineering

Architectural Design
Architectural Construction

Art Education
Arts and Crafts
Industrial Design

History of Art
Advertising Design
Painting

PHYSICAL EDUCATION

Physical Education for Men
Physical Education for Women

Dance
Health Education
Recreation

Board of Trustees

UNIVERSITY OF ILLINOIS

Members Ex-Officio

WILLIAM G. STRATTON, Governor of Illinois ..... Springfield
GEORGE T. WILKINS, Superintendent of Public Instruction ..... Springfield

Elected Members
Term 1955-1961

WIRT HERRICK ..... 120½ E. Main St., Clinton
MRS. FRANCES B. WATKINS ..... 5312 Cornell Ave., Chicago 15
KENNEY E. WILLIAMSON ..... Sixth Floor, Lehmann Building, Peoria 2

Term 1957-1963

WAYNE A. JOHNSTON ..... 135 E. Eleventh Place, Chicago 5
EARL M. HUGHES ..... Hughes Farms, Route 1, Woodstock
TIMOTHY W. SWAIN ..... 912 Central National Bank Building, Peoria 2

Term 1959-1965

HOWARD W. CLEMENT ..... 38 S. Dearborn St., Chicago 3
RICHARD A. HAREWOOD ..... 733 E. 75th St., Chicago 19
HAROLD POGUE ..... 705 N. Oakland Ave., Decatur

Officers of the Board

KENNEY E. WILLIAMSON, President ..... Peoria
ANTHONY J. JANATA, Secretary ..... Urbana
CLARENCE W. WELDON, Treasurer ..... Chicago
HERBERT O. FARBER, Comptroller ..... Urbana

Committee on the Chicago Departments

MRS. FRANCES B. WATKINS, Chairman, WAYNE A. JOHNSTON,
HAROLD POGUE

Administrative Officers

Urbana

DAVID DODDS HENRY ..... President
CHARLES WILSON SANFORD ..... Dean of Admissions

Chicago Undergraduate Division

CHARLES C. CAVENY ..... Executive Dean
ARTHUR D. PICKETT ..... Associate Dean of Administration
HAROLD N. COOLEY ..... Assistant Dean
ROBERT P. HACKETT ..... Associate Dean
Commerce and Business Administration
WILLIAM J. DUNNE ..... Assistant Dean
Commerce and Business Administration
FREDERICK W. TREZISE ..... Associate Dean
Engineering
RUPERT M. PRICE ..... Assistant Dean
Engineering
HAROLD W. BAILEY ..... Associate Dean
Liberal Arts and Sciences
WILLIS C. JACKMAN ..... Assistant Dean
Liberal Arts and Sciences
ELLIS B. LITTLE ..... Assistant Dean
Liberal Arts and Sciences
JOHN O. JONES ..... Associate Dean
Physical Education and Director of Athletics
WARREN O. BROWN ..... Associate Dean of Students
Foreign Student Advisor and Veterans' Counselor
AGNES G. TANDBERG ..... Dean of Women
HERTON S. ZAHRT ..... Assistant to the Dean of Students
HAROLD E. TEMMER ..... Associate Dean of Admissions and Records
PAUL C. GREENE ..... Director, Student Counseling Service
ARNOLD J. HARTOCH ..... Director of Publications
GORDON REID, M.D. ..... Director, Health Service
EDWARD M. HEILIGER ..... Librarian
ROBERT L. ZANDER ..... Assistant Superintendent
of Buildings and Grounds
ROBERT E. PORTER ..... Assistant to the Business Manager
PAUL CAHILL ..... Assistant Manager, Public Information
JOE J. VOTAVA ..... Personnel Officer
DANIEL L. CRUMPACKER, Major USA ..... Commandant, Army ROTC Unit

Calendar

Chicago Undergraduate Division

First Semester (Fall 1960)

Sept. 6, Tues.-Sept. 14, Wed. ..... Orientation perio
Sept. 15, Thurs. - Sept. 16, Fri. ..... Registratio
Sept. 19, Mon. ..... Instruction begin
Nov. 23, Wed., 6 p.m. ..... Thanksgiving vacation begin
Nov. 28, Mon., 8 a.m. ..... Thanksgiving vacation end
Dec. 3, Sat. ....Illinois Day (State admitted to Union, 1818; not a holiday
Dec. 16, Fri., 6 p.m. ..... Christmas vacation begin
Jan. 3, Tues., 8 a.m. ..... Christmas vacation end
Jan. 20, Fri.-Jan. 27, Fri. ..... Semester examinatio

Second Semester (Spring 1961)

Feb. 3, Fri.-Feb. 8, Wed. ..... Orientation perio
Feb. 9, Thurs. - Feb. 10, Fri. ..... Registratio
Feb. 13, Mon. ..... Instruction begi
March 2, Thurs. ..University Day (University opened, 1868;—not a holiday
March 30, Thurs., 6 p.m. ..... Easter vacation begi
April 5, Wed., 8 a.m. ..... Easter vacation en
May 12, Fri. ..... Honors Da
May 30, Tues. ..... Memorial Day (Holida
June 2, Fri. - June 9, Fri. ..... Semester examinatio

Summer Session 1961

June 23, Fri. ..... Registrati
June 26, Mon. ..... Instruction begi
July 4, Tues. ..... Independence Day (Holida
Aug. 18, Fri. ..... Summer Session examinatio

Calendar

Urbana

First Semester (Fall 1960)

Sept. 6, Tues. - Sept. 9, Fri. ..... Entrance examinations
Sept. 12, Mon. - Sept. 17, Sat. ..... Freshman Week and Registration
Sept. 19, Mon. ..... Instruction begins
Nov. 22, Tues., 5 p.m. ..... Thanksgiving vacation begins
Nov. 28, Mon., 8 a.m. ..... Thanksgiving vacation ends
Dec. 3, Sat. ..... Illinois Day (State admitted to the Union, 1818)
Dec. 17, Sat., 1 p.m. ..... Christmas vacation begins
Jan. 3, Tues., 8 a.m. ..... Christmas vacation ends
Jan. 19, Thurs. ..... Study Day, classes dismissed
Jan. 20, Fri. - Jan. 28, Sat. ..... Semester examinations

Second Semester (Spring 1961)

Jan. 31, Tues. - Feb. 3, Fri. ..... Entrance examinations
Feb. 6, Mon. - Feb. 8, Wed. ..... Registration
Feb. 9, Thurs. ..... Instruction begins
Mar. 2, Thurs. ..... University Day (University opened, 1868)
Mar. 29, Wed., 5 p.m. ..... Spring vacation begins
Apr. 4, Tues., 8 a.m. ..... Spring vacation ends
May 5, Fri. ..... Honors Day
May 30, Tues. ..... Memorial Day (Holiday)
May 30, Tues. ..... Study Day
May 31, Wed. - June 8, Thurs. ..... Semester examinations
June 17, Sat. ..... Commencement exercises

Summer Session 1961

June 6, Tues. - June 9, Fri. ..... Entrance examinations
June 19, Mon. ..... Registration
June 20, Tues. ..... Instruction begins
July 4, Tues. ..... Independence Day (Holiday)
Aug. 11, Fri. - Aug. 12, Sat. ..... Summer Session examinations

Faculty

CHICAGO UNDERGRADUATE DIVISION
1959-1960

PROFESSORS

Babler, Bernard J., Ph.D., Chemistry.

Bailey, Harold W., Ph.D., LL.D., Mathematics; Associate Dean o
Liberal Arts and Sciences.

Barber, Hollis W., Ph.D., Political Science.

Barton, Helen M., Ed.D., Physical Education for Women; Head o
the Department of Physical Education for Women.

Carlson, Clarence I., B.S., General Engineering; Head of the Depart
ment of General Engineering.

Caveny, Charles C., Executive Dean, Chicago Undergraduate Di
vision.

Cobb, Arnold C., M.S., Theoretical and Applied Mechanics.

Crum, Ferris B., Ph.D., Chemistry.

Cutshall, Alden D., Ph.D., Geography.

Derrick, Lucile, Ph.D., Economics.

Fox, Samuel, J.D., Ph.D., Accountancy.

Frank, Evelyn, Ph.D., Mathematics.

Goppert, Harold R., M.S., General Engineering.

Grampp, William D., Ph.D., Economics.

Greene, Paul C., Ph.D., Psychology; Director, Student Counselin
Service.

Hackett, Robert P., Ph.D., Accountancy; Associate Dean of Com
merce and Business Administration.

Huitema, Roy, Ph.D., Chemistry.

Jones, John O., M.S., Physical Education for Men; Associate Dean
Physical Education; Director of Athletics.

Klassen, Peter P., Ph.D., Sociology

Kozacka, Joseph S., M.S., Mechanical Engineering, *emeritus.*

Lipman, Eli A., Ph.D., Psychology.

McEldowney, Harold B., B.S., Architecture; Head of the Departme
of Architecture and Art.

McNeil, Edward B., Ph.D., Physics.

Meloy, Carl R., Ph.D., Chemistry; Head of the Division of Physic
Sciences.

Morris, Daniel J., Ph.D., Philosophy.

Nowlan, Frederic S., Ph.D., Mathematics, *emeritus.*

Railsback, Ora L., Ph.D., Physics; Head of the Department of Physic

Richardson, John F., M.A., Art.

Riddle, Donald W., Ph.D., History; Head of the Division of Social Sciences.
Sangster, William, Ph.D., Biological Sciences.
Schuyler, William M., Ph.D., Foreign Languages.
Thompson, Wayne N., Ph.D., Speech. (On leave, 2nd semester 1959-60.)
Trezise, Frederick W., C.E., M.S., Engineering; Associate Dean of Engineering.
Vardaman, Hazel C., Ph.D., Foreign Languages.
Vest, Eugene B., Ph.D., English; Head of the Division of Humanities.

ASSOCIATE PROFESSORS

Anderson, William R., M.S., Physics.
Bachrach, Joseph, Ph.D., Chemistry.
Chandler, Louis, Ph.D., Physics.
Coe, Edward H., C.E., Civil Engineering.
Crumpacker, Daniel L., B.S., Major, U.S.A., Military Science and Tactics.
DeFilipps, Anthony J., B.S., Architecture.
Dinkines, Flora, Ph.D., Mathematics. (On leave, 2nd semester 1959-60.)
Ells, Kenneth W., Ph.D., Psychology; Assistant Director, Test Services and Counselor, Student Counseling Service.
Feinstein, Irwin K., Ph.D., Mathematics Education.
Gillett, Clarence H., Ph.D., Economics.
Glassman, Sidney F., Ph.D., Biological Sciences.
Hartley, Miles C., Ph.D., Mathematics.
Hartoch, Arnold J., Ph.D., Foreign Languages; Director of Publications.
Heiliger, Edward M., B.S. in L.S., M.A., Library Administration; Librarian.
Hunt, Charles K., Ph.D., Chemistry.
Johnson, Herman J., M.S., Physics.
Jones, Stanley L., Ph.D., History. (On leave, 2nd semester 1959-60.)
Kibbes, S. Madonna, M.B.A., C.P.A., Accountancy.
Krpinski, Robert W., D. ès S., Geology.
Lehr, Harold, Ph.D., Psychology; Assistant Director, Counseling Services and Counselor, Student Counseling Service.
Mahler, Richard C., Ed.D., General Engineering.
Mistka, Helen M., M.D., Hygiene.
Mohn, Marie E., Ph.D., Foreign Languages.
Madison, Kenneth M., Ph.D., Biological Sciences.
Mansfield, J. Victor, Ph.D., Chemistry.

McNee, John D., Jr., A.M., Art.
Mikolajczyk, Henry L., A.M., Architecture; Associate Architect.
Morgenthaler, George W., Ph.D., Mathematics; Head of Division of Mathematics. (On leave, 2nd semester 1959-60.)
Nicholas, Constance, Ph.D., English.
Nicholson, Robert L., Ph.D., History.
Pennisi, Louis L., Ph.D., Mathematics.
Perkins, Roy B., M.S., Mechanical Engineering; Head of the Department of Engineering Shop Laboratories.
Pickett, Arthur D., Ph.D., Biological Sciences; Associate Dean of Administration.
Pitt, Carl A., Ph.D., Speech.
Price, Rupert M., M.S., Physics; Assistant Dean of Engineering.
Radice, Canio, M.A., Art.
Rathbun, Rowland, M.S., Architecture.
Reid, H. Gordon, M.D., Hygiene; Director, Health Service.
Ricks, Victor E., Ph.D., Education; Teacher Education Advisor.
Rouffa, Albert S., Ph.D., Biological Sciences.
Sanchez, José, Ph.D., Foreign Languages.
Schneider, Albert J., M.B.A., C.P.A., Accountancy.
Schrage, Samuel, Ph.D., Chemistry.
Schroeder, Roy W., Foundry and Pattern Design.
Shank, Max C., Ph.D., Biological Sciences; Chairman of the Division of Biological Sciences.
Shapiro, Samuel E., B.S., General Engineering.
Shaw, Fayette B., Ph.D., Economics.
Shopen, Kenneth, A.B., Art.
Skadeland, Harold M., M.A., Physics.
Walley, John E., Architecture.
Walraven, H. Dale, M.A., General Engineering.
Willner, Ernest S., Ph.D., Foreign Languages.

ASSISTANT PROFESSORS

Andrews, Daniel K., Ph.D., Accountancy.
Armold, Jack D., Ph.D., Speech.
Baer, Jean H., Ph.D., Education; Counselor, Student Counseling Service.
Ballard, Ruth M., Ph.D., Mathematics.
Berman, Louis A., Ph.D., Psychology; Counselor, Student Counseling Service.
Berrafato, Peter R., M.S., Physical Education for Men; Director Intramural Sports.
Bess, Leon, Ph.D., Physics.

Bill, Shirley A., Ph.D., History.
Blair, Leon N., B.S., General Engineering.
Blum, Irving D., Ph.D., English.
Burch, Irenaes A., Ph.D., Psychology; Counselor, Student Counseling Service.
Burr, Edward E., B.F.A., Art.
Buss, Truman C., Jr., B.S. in Arch., General Engineering.
Chambers, Robert M., B.S., Captain, U.S.A., Military Science and Tactics.
Colburn, Irving W., B.A., Architecture.
Colby, Mary M., Ph.D., Geography.
Corley, Robert E., Ph.D., Sociology.
Curtis, Herbert J., Ph.D., Mathematics; Acting Head of the Division of Mathematics, 2nd semester 1959-60.
Dembski, Marion V., M.A., General Engineering.
DeYoung, Charles D., M.A. in L.S., M.S., Library Administration; Circulation Librarian.
Dunne, William J., M.B.A., Economics; Assistant Dean of Commerce and Business Administration.
Elbinger, Rebecca L., Ph.D., Chemistry.
Enney, Mildred I., Ph.D., Geography.
Essinger, Edwin R., M. Mus., Music.
Fordham, Sheldon L., M.S., Physical Education for Men; Track and Cross Country Coach.
Frommherz, Carl J., A.B., B.S. in L.S., Library Administration; Catalog Librarian.
Fuller, John B., Ph.D., Foreign Languages, *emeritus*.
Gedvilas, Leo L., M.S., Physical Education for Men.
Goodman, Gordon L., Ph.D., History.
Gottlieb, Anatol, T.Sc.D., Chemistry.
Grenzel, Roland F., M.F.A., Art.
Grim, Wanda N., Ed.D., Social Sciences, *emerita*.
Hilker, Gloria, M.D., Hygiene.
Holladay, Dee Mette, A.B., General Engineering.
Howard, Allen H., Ph.D., Psychology.
Ikman, Willis C., M.A., English; Assistant Dean of Liberal Arts and Sciences.
Jenson, Falk S., Ph.D., English.
Jenson, John C., Ph.D., English.
Jordan, Moreen C., Ph.D., English.
Kranikas, Alexander, Ph.D., English.
Kuf, Robert, Ph.D., Foreign Languages. (On leave, 2nd semester 1959-60.)

†Kenny, Anna W., Ph.D., English, *emerita.*
Klapperich, Alfred J., B.S., Electrical Engineering.
Klass, Rosalind A., Ph.D., Chemistry.
Knudson, Edward C., M.B.A., Economics.
Kogan, Bernard R., Ph.D., English. (On leave, 2nd semester 1959-60.)
Kristufek, Charles J., M.S., Physical Education for Men; Assistant to the Director of Athletics; Swimming and Tennis Coach.
Leonhard, Zelma B., Ph.D., English.
Lipkin, Lawrence, M.B.A., C.P.A., Accountancy.
Little, Ellis B., Ed.D., Biological Sciences; Assistant Dean of Liberal Arts and Sciences.
Livermore, Ogden, M.A., Physics.
Madenberg, Fred, M.D., Hygiene.
Malinosky, Alfonse T., M.B.A., C.P.A., Accountancy.
Marsh, John O., Jr., Ph.D., Foreign Languages.
Masterton, Don A., M.S., Architecture.
Miller, Sonia, Ph.D., English.
Minkler, Marcus W., M.S., Physics.
Montcalm, Benedict W., M.A., Physical Education for Men; Gymnastics Coach.
Moraine, Fishel E., Dipl. Ing., Physics.
Mueller, Hans J., Ph.D., Chemistry. (On leave, 1959-60.)
Murphy, Kenneth H., M.S., Mathematics.
Newell, John T., Ph.D., Biological Sciences.
Nickle, Robert W., B.S., Art.
Pabarcius, Algis, M.S., Civil Engineering.
Pappademos, John N., M.A., Physics.
Pesavento, Wilma, M.A., Physical Education for Women.
Presley, Halina J., Ph.D., Biological Sciences.
Rakove, Milton L., Ph.D., Political Science.
Rayson, Glendon E., M.D., Hygiene.
Rheumer, George A., Ph.D., Geography.
Rietz, Edward G., Ph.D., Chemistry.
Robertson, Giles B., M.A., Library Administration; Reference Librarian.
Royster, Richard S., M.A., General Engineering.
Runyan, Harry J., Ph.D., English.
Schiller, Andrew, Ph.D., English.
Schroeder, Fred W., M.S., General Engineering.
Schultheiss, Louis A., M.A., Library Administration; Serials-Acquisition Librarian.
Setton, Henry A., B.S., General Engineering.

†Deceased, September 6, 1959.

Shomay, David, Ph.D., Biological Sciences.
Silkett, Albert F., A.B., Physics.
Stableford, Nancy, M.F.A., Art.
Stronks, James B., Ph.D., English.
Teichmann, Elizabeth, Ph.D., Foreign Languages.
Unfer, Louis, Ph.D., History.
Versen, Walter G., Ed.M., Physical Education for Men; Football Coach.
Weiss, Samuel A., Ph.D., English.
Weldon, John W., Ph.D., Chemistry.
White, Lester D., Architecture.
Wiesinger, Frederick P., A.E., Civil Engineering.
Willett, Maurita F., Ph.D., English.
Wright, Elizabeth V., Ph.D., English. (On leave, 2nd semester 1959-60.)
Zaccaria, Lucy C., Ph.D., Psychology; Counselor, Student Counseling Service.

INSTRUCTORS

delsperger, Robert J., M.S., Library Administration; Assistant Serial and Acquisitions Librarian.
lberti, Furio, M.S., Mathematics.
twood, Norman R., M.A., English.
engtson, Marjorie C., M.S. in L.S., Library Administration; Assistant Reference Librarian.
erglund, Winifred V., M.A., Mathematics.
ond, James A., M.A., Biological Sciences.
uc, Charles A., B.A., General Engineering.
aunfeld, Johanna, M.A., Foreign Languages.
ldario, Edward J., B.S., General Engineering.
rbonaro, Lynn M., M.S., Chemistry.
rlson, Kathryn Q., M.A., English.
ssell, Robert L., M.A., English. (On leave, 1st semester 1959-60.)
sten, Sabine H., M.S., Chemistry.
arkovsky, Willis, M. Mus., Music.
illag, Joan M., M.A., English.
aar, Catherine H., M.A., Biological Sciences.
ampitt, Robert E., Sgt. First Class, U.S.A., Military Science and Tactics.
win, John W., M.A., Chemistry.
x, F. Gaylord, M.A., English.
easer, James W., M.A., Psychology; Counselor, Student Counseling Service.

Crews, Janice M., AM., Speech.
Dafler, James R., B.A., Chemistry.
Davis, Russell E., M.A., English.
DeFotis, William, B.S., General Engineering.
**DeGryse, Ruby V., M.A., Speech.
Delfs, Harry J., M.S., Chemistry.
DeMar, Robert E., A.B., Geology.
Dembski, William J., M.S., Biological Sciences.
Engelbrecht, Lloyd C., M.S. in L.S., Library Administration; Fine Art
Librarian.
Farag, Shafeek, M.A., Chemistry.
Ferrara, Salvatore V., M.A., Economics.
†Freyer, Warren R., A.M., English.
Friend, James, M.A., English.
Gallagher, Mary T., M.A., English.
Geldard, Winifred B., M.A., Economics.
Gordon, Louis I., M.S., Mathematics.
Goulson, Frances M., M.T.A., Speech.
*Griest, Guinevere L., A.M., English.
Harris, Eleanor K., A.M., English.
Haslett, Jared W., M.S., Physics.
Hedberg, Donald D., B.A., Chemistry.
Hedish, Norman D., M.A., Accountancy.
Heftel, Daniel L., M.A., Psychology; Counselor, Student Counselin
Service.
Hegie, Lucy S., M.A., English.
Henderleiter, William M., A.M., Mathematics.
Herzog, Elaine N. F., M.A., Chemistry.
Hill, Roger G., B. A., Mathematics.
Hoskins, Conde R., M.A., Speech.
Hough, Ingeborg V., M.A., Foreign Languages.
Hovde, Helen J., M.A., Speech.
Jones, David R., M/Sgt., U.S.A., Military Science and Tactics.
Kerwick, Marion S., M.A., English.
Kester, Martha, A.B., M.S. in L.S., Library Administration; Assista
Catalog Librarian.
Kirstein, Laurette A., M.A., English; Counselor, Student Counseli
Service.
Kundrat, Theodore V., M.A., Speech.
Kurs, Louis N., M.S., Geology.

†Deceased, April 13, 1960.
*First Semester Only.
**Second Semester Only.

Kuzmanic, Betty J., M.Ed., Mathematics.
Kysar, John E., M.D., Hygiene.
Lariviere, Rose, M.A., Mathematics.
Larson, Carl M., M.B.A., Economics.
Lasher, Sim, M.S., Mathematics.
Lawson, Joan C., M.A., English.
Linn, Julia B., M.S., Mathematics.
Lipman, Vivian C., M.A., Psychology.
Love, W. Nell, A.M., English.
Lumley, Jeanette S., M.A., Mathematics.
Lutton, William R., M.A., Foreign Languages.
Mackin, John H., A.M., English.
Maksud, Michael G., M.A., Physical Education for Men; Assistant Basketball Coach.
Merten, Horace G., M.A., English, *emeritus.*
Miller, Irving M., M.A., English.
Miller, Oscar, M.A., Economics.
Miller, Robert L., M.S., Chemistry; Counselor, Student Counseling Service.
Mosillo, Francis A., B.S., General Engineering.
Nolan, Grace M., M.A., Mathematics.
Oleksy, Margaret H., M.A., English.
Olsen, Charles E., B.S., Mathematics.
Ondrak, Thomas B., M.S., Mathematics.
Page, Robert R., A.M., Philosophy.
Paré, Eileen, M.S., Chemistry.
Perry, Clarence J., M.Ed., Chemistry.
Potempa, Sylvester J., M.S., Chemistry.
Rader, Richard R., M.A., Physical Education for Men; Golf Coach; Basketball Coach.
Rigler, Matthew L., M.A., Speech; Head of the Speech Improvement Laboratory.
Rudin, Cecilia M., M.A., English.
Sackheim, George I., M.S., Chemistry.
Sarkissian, John L., M.S., Biological Sciences.
Savoy, Michael G., M.S., Chemistry.
Schoessling, Bernadette S., A.B. in L.S., Library Administration; Assistant Reference Librarian.
Scholomiti, Nicholas C., A.M., Mathematics.
Scudder, Charles L., M.S., Biological Sciences.
Seabright, Frances K., M.S., Chemistry.
Sears, Helen W., M.A., Mathematics.
Seltzer, Arthur O., A.M., Economics.
Sidney, Mary C., A.M., English.

Sjoblom, Laurence R., B.S., Mathematics.
Skogen, Clara S., M.A., Foreign Languages.
*Smith, Robert J., M.A., English.
Spaeth, Joseph L., M.A., Social Sciences.
Spies, Harold W., M.D., Hygiene.
Spirakis, Charles N., A.M., Biological Sciences.
Stanley, William J., B.S., Mechanical Engineering.
Star, Morris, M.A., English.
Steiner, John F., Ph.D., Chemistry.
Strnad, George J., B.S., Physical Education for Men; Assistant Football Coach; Wrestling Coach.
Timmis, Beatrice S., M.A., English.
Tort, Ferdina J., M.A., Foreign Languages.
Traxler, Marjorie D., M.S., Chemistry.
Tyroler, Robert L., S.M., Psychology.
Vedral, Rose L., M.A., Mathematics.
Warren, Charles P., M.A., Anthropology.
Wilbur, James W., M.A., Physics.
Wiley, Rosemary F., A.M., Mathematics.
Young, Poh-Shien, M.S., Physics.
Ziomek, Leo F., M.S., Mathematics.
Zygmund, Irena, M.A., Mathematics.

ASSISTANTS

Anzalone, Charlene B., B.S., Physical Education for Women.
Applegate, Shelton P., M.S., Biological Sciences.
Asch, Walter B., Ph.D., Social Sciences.
Blanco-Gonzalez, Manuel, M.A., Spanish.
*Blumenthal, Jerome S., M.A., English.
Claypoole, Donna Jean, B.A., Physical Education for Women.
Crabb, Robert L., M.A., Economics.
*Danner, Robert, B.S., Physical Education for Men.
Dickett, Gust W., B.S., J.D., Economics.
Johnson, Robert E., B.A., Chemistry.
Krishna, Kumar, M.S., Biological Sciences.
Lallas, Stanley P., M.A., Foreign Languages.
Lothian, Thomas A., B.S., Chemistry.
Majer, James A., B.S., Physical Education for Men; Assistant Football and Swimming Coach.
Mart, Dorothy J., B.S., Physical Education for Women.
*McFate, Patricia A., M.A., English.
Mertes, Robert A., M.S., Mathematics.

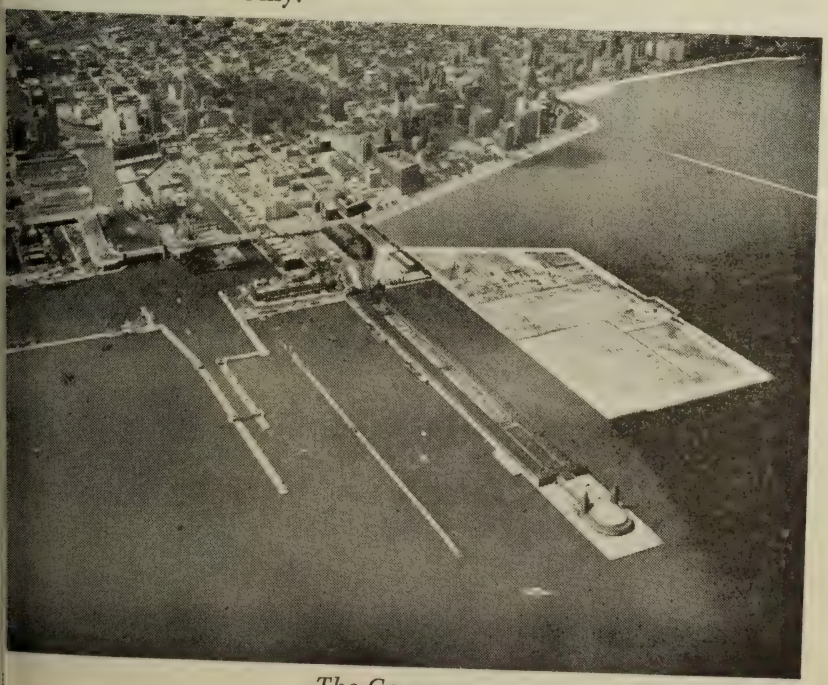
*First Semester Only.

**Mueller, Ilze, M.A., Foreign Languages.
Nemoto, Harold H., B.S., Physical Education for Men; Assistant Football Coach; Assistant Baseball Coach.
Ossman, Edward T., B.S.C., Accountancy.
Peyton, Ann., M.A., English.
Phillips, Anne, M.A., English.
*Reed, Mary, M.A., English.
Smith, William R., Jr., M.A., English.
Springer, Melvin J., Physical Education for Men; Soccer Coach; Assistant Track Coach.
*Styrna, Mitchell, B.S., Physical Sciences.
Terrill, Robert E., M.A., English.
Thomas, Ruth G., B.S., Physical Education for Women.
*Wasserman, Loretta L., M.A., English.
Wildner, Donald E., B.S., Physical Education for Men; Assistant Football, Baseball, and Basketball Coach.

VISITING LECTURERS

Beratan, Leon L., M.S. in C.E., Civil Engineering.
Graf, William, M.S., Theoretical and Applied Mechanics.

*First Semester Only.
**Second Semester Only.



The Campus.

Admission

THERE ARE SEVEN STEPS

In order to become a student at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

1. Obtain an application for admission. The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.

A friendly welcome to a prospective student.

2. Provide the Office of Admissions and Records with an official tra script of his record in high school and his record at each college institution of higher education which he has attended since leavi high school. The applicant must assume responsibility for having the records forwarded directly to the Office of Admissions and Record University of Illinois, Chicago Undergraduate Division, Navy Pie Chicago 11, Illinois, by an official of the school concerned.

The applicant should arrange with the registrar of his high scho and of each college or university he has attended to have his tra

scripts forwarded to this office as soon as possible, to permit an early evaluation of his credentials.

In addition, an applicant who has been on active duty in the Armed Forces must also submit copies of his service separation papers.

A high school senior may apply during his eighth semester. He may be issued a permit to enter, subject to the successful completion of his eighth semester, based on his work during the first seven semesters, his rank in class after seven semesters, the courses in progress his eighth semester, and the probable date of his graduation.

3. **Decide which college and curriculum** in the University he desires to enter. The Chicago Undergraduate Division of the University at scheduled times throughout the year offers Vocational and Educational Aptitude Examinations which are followed by professional counseling. This counseling may assist a student who is uncertain as to which college or curriculum will best serve his needs.

These examinations and counseling interviews are offered several months in advance of each orientation period so that students may have ample time for thoughtful planning. Appointment requests for these examinations may be made through the Office of Admissions and Records. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

A new freshman who has not already taken these guidance examinations is required to complete them during the New Student Orientation Week, preceding the beginning of classes each semester. Exception: A student ranking in the lowest quarter of his class does not take these examinations, but follows the procedure listed in Paragraph VI, C, page 35.

4. **Complete and return** the application blank.

Physical Education Majors: Make appointment for interview with the Associate Dean of the College of Physical Education.

5. **Wait for action to be taken** on your application. When an applicant's case is complete, that is, after his completed application blank and all necssary supporting records and transcripts have been received, the case will be evaluated.

If the application is approved, the applicant will be sent a permit to enter. Enclosed with his permit will be appointments for:

a. Such placement and guidance tests as may be required for him;

b. His physical examination;

c. A meeting with the Dean of the College to which he has been admitted;

d. A meeting with the Dean of Men or Women, as appropriate;

e. Advisement on his study program and registration for classes.

If the application is not approved, the Office of Admissions and Records will send the applicant written notice of his denial, explain why, and make suggestions as to how he may qualify for admission later.

6. Report to Navy Pier for orientation meeting, physical examination, college meeting, and tests on the dates specified in the notice which the applicant will receive if admitted.

7. Register, pay tuition and fees, and start classes.

ADMISSION REQUIREMENTS

The admission requirements to the University of Illinois are divided into two groups:

I General University Admission Requirements, which apply to every student entering the University of Illinois;
and

II Specific Subject Requirements for admission to a particular college and curriculum within the University, which apply to every student entering that college and curriculum.

Since each student entering the University of Illinois must enroll in a particular college and curriculum within the University, EACH STUDENT MUST MEET BOTH SETS OF ADMISSION REQUIREMENTS, i.e., the General University Admission Requirements and the Specific Subject Requirements for the college and curriculum of his choice.

I. General University Admission Requirements

These requirements must be met by all applicants. For definition of the terms used and description of the subjects acceptable in satisfaction of the requirements, please refer to Paragraph III, pages 29-30.

A. Graduation from an accredited high school. Students ranking scholastically in the fourth quarter of their high school class, see Paragraph VI, C, page 35.

B. An applicant must be at least sixteen years of age. This requirement may be waived for a student fifteen years of age on

recommendation of the dean of the college concerned, provided the student resides with his parents or guardian, or someone selected by them, while attending the University.

C. Fifteen units of acceptable secondary school work distributed as follows:

1. A minimum of nine units of work in the academic fields (English, foreign languages, history and social studies, mathemathics, and sciences) including:

   a. At least three units of English.

   b. At least two majors (one of which must be English) and one minor selected from the list of acceptable majors and minors in Paragraph III, D. (This requirement, except as it applies to English, is waived for an applicant who ranks scholastically in the upper half of his high school graduating class.)

2. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet the standards for accrediting.

II. College Subject Requirements: **See table on page 28.**

The West Campus—Navy Pier Park.

Required Subjects for Specific Colleges and Curricula

IN ADDITION to the General University Admission Requirements, page 26

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION All Fields (Accountancy; Commerce and Law; Commercial Teaching; Economics of Government and Business, Public Utilities, and Transportation; Economic History; Economic Theory; Finance; General Economics; Industrial Administration; Insurance; Labor Economics; Management; Marketing; Personnel Management; Secretarial Training; Statistical Economics; Urban Land Economics.)	Algebra, 1 unit Geometry, 1 unit
COLLEGE OF ENGINEERING All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Industrial, Mechanical, Metallurgical, Mining, Engineering Mechanics, Engineering Physics, Sanitary.) For combined Engineering-Liberal Arts curriculum, see under Liberal Arts.	Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Paragraph III, D, 3, Page 29) (See new changes on Page 30)
Curricula in Architecture Design Option (for B.S. Degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering)	Algebra, 1½ units Geometry, 1 unit (See Paragraph III, D, 3, Page 29)
Curricula in Art (Advertising Design, Industrial Design, Painting, History of Art, Art Education, Arts and Crafts)	Language 2 units[1] (See Paragraph III, D, 2, Page 29)
COLLEGE OF LIBERAL ARTS AND SCIENCES General Curriculum with majors in Bacteriology, Botany, Economics, English, French, Geography, Geology, German, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology. Curricula preparatory to Journalism and Law Teacher Education Curricula not requiring Chemistry, Physics, or Mathematics Occupational Therapy Curriculum (See also Paragraph VI, B, 1, c, Page 35)	Language, 2 units[1] (See Paragraph III, D, 2, Page 29) Beginning with admission to the fall semester 1961, one year of elementary algebra and one year of geometry will also be required
General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology Curricula preparatory to Dentistry, Medicine, Veterinary Medicine (See Also Paragraph VI B, 1, a, Page 34) Teacher Education Curricula requiring Chemistry, Physics, or Mathematics Prepharmacy and Home Economics Prenursing (See also Paragraph VI, B, 1, c, Page 35)	Language 2 units[1] (See Paragraph III, D, 2 Page 29) Algebra, 1 unit Geometry, 1 unit
Curriculum in Chemistry	Language 2 units[1] Algebra, 1½ units Geometry, 1 unit (See Paragraphs III, D, 2, 3, Page 29)
Curricula in Chemical Engineering, Combined Engineering-Liberal Arts, Physics (See also Paragraph VI, B, 1, b, Page 34)	Language, 2 units[1] Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Paragraphs III, D, 2, 3, Page 29
Curriculum in Elementary Education	
Forestry Teacher Education, Industrial Education Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children (See also Paragraph VI, B, 1, d, Page 35)	Algebra, 1 unit Geometry, 1 unit Above subjects plus written approval of the Teacher Education Advisor
COLLEGE OF PHYSICAL EDUCATION All curricula (Physical Education for Men, Physical Education for Women, Dance, Health Education, Recreation)	Written approval of the Associate Dean of Physical Education

[1]Foreign language requirement is waived for students who rank in the upper half of their high school graduating classes. See page 32, paragraph IV, E for change in this requirement effective September, 1964.

III. Definitions

A. *Unit.* A unit is the equivalent of two high school credits, i.e., the value given to a course of study covering two semesters and including not less than the equivalent of 120 sixty-minute periods of class-room work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, geometry, physics, chemistry, or biology.

B. *Major.* A major consists of a three-year sequence in one academic field.

C. *Minor.* A minor consists of a two-year sequence in one academic field.

The University's definition of a major and a minor may not be the same as that in use in your high school.

D. *Acceptable Majors and Minors.* The required majors and minors (See par. I, C, 1. b page 27) must be selected from the following:

1. *English.* In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

2. *Foreign Language.* Three units in one language constitute a major. Two units in one language constitute a minor. The acceptable foreign languages are French, German, Greek, Italian, Latin, Portuguese, Spanish and Russian. Less than one unit in a language is not acceptable for admission.

3. *Mathematics.* Only courses in algebra, plane geometry and solid geometry and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.)

In the College of Engineering and in the chemistry, chemical engineering, and physics curricula of the College of Liberal Arts and Sciences, a student who has only one unit in algebra and one unit in geometry, and who meets all other

entrance requirements, may be admitted on condition that deficiencies in advanced mathematics be removed during his first year of residence. However, this will probably extend the time required for a degree.

A student who does not present the three and one-half units in mathematics as specified may be admitted to full standing if he passes a proficiency examination at the University which will indicate that his preparation is adequate for entrance into analytic geometry.

4. *Science*, including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. The two units required for a minor must include at least one unit of physics, chemistry, botany, or zoology. Biology may be offered in place of botany or zoology.

5. *Social Studies.* This field is divided into two areas:

a. History, e.g., United States, modern, ancient, medieval, etc. Three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.

b. General Social Studies, e.g., civics, economics, and sociology.

IV. New Admission Requirements (changes recently approved)

IMPORTANT NOTE: All of the following requirements are in addition to those listed on pages 26 and 27.

A. Beginning with admission to the fall semester 1961, all students entering the College of Liberal Arts and Sciences must present credit in one year of elementary algebra and one year of plane geometry. This will be a non-waiverable requirement.

B. Beginning with admission to the fall semester 1961, a progressive admissions plan will be instituted.

Because available facilities are insufficient to provide for all qualified applicants, priorities for admission to the University will be established as described below:

Priorities for Action on Applications for Admissions to the Fall Semester

1. Period I, through March 31, 1961
   a. New freshmen who are residents of Illinois and who rank in the upper twenty-five percent of their high school classes
   b. New freshmen who are nonresidents of Illinois and who rank in the upper fifteen percent of their high school classes.
   c. Transfer students who are residents of Illinois with not less

than a 3.75 average in their college work in terms of the grading system of the University of Illinois.

d. Transfer students who are nonresidents of Illinois with not less than a 4.0 average in their college work in terms of the grading system of the University of Illinois.

2. Period II, from April 1 through April 30, 1961
   a. New freshmen who are residents of Illinois and who rank in the upper fifty percent of their high school classes.
   b. New freshmen who are nonresidents of Illinois and who rank in the upper twenty-five percent of their high school classes.
   c. Transfer students who are residents of Illinois with not less than a 3.5 average in their college work in terms of the grading system of the University of Illinois.
   d. Transfer students who are nonresidents of Illinois with not less than a 3.75 average in their college work in terms of the grading system of the University of Illinois.
3. Period III, after April 30, 1961
   a. All applicants, new freshmen and transfers, who meet all requirements for admission to the University.

Similar System of Priorities May Be Established for the Spring emester.

C. Beginning with admission to the fall semester 1961, a graduate of an accredited high school who is a resident of Illinois, whose rank in scholarship is in the lowest quarter of his graduating class (for those seeking admission in the fall of 1961 or thereafter), of in the lower half (for those seeking admission in the fall of 1963 or thereafter), and who is otherwise qualified for admission, will be admitted to the University upon presentation of *any one* of the following evidences of ability to do satisfactory work at the University:

1. Obtain a passing score on a test, or tests, as prescribed by the All-University Committee on Admissions. (The Committee may set separate passing scores for students in the third quarter and in the fourth quarter of their high-school classes, and shall set passing scores such that a student admitted to the University by this means will have approximately one out of four chances, or better, of being on clear status at the end of the first semester of his college work.) OR,
2. Present evidence of having attempted twelve or more semester hours of work at another college or university of recognized standing, and having met the regular University requirements for admission as a transfer student. OR,

3. Apply for admission to a session which begins at least twelve months after the applicant's graduation from high school, provided that (a) in this twelve-month period he has not attempted as much as twelve semester hours of work at another college or university of recognized standing, and (b) that he meets all other University requirements for admission that are applicable to him, except that he shall not be required to take the test, or tests, prescribed in "1" above.

The student's rank is to be based on work completed in grades nine, ten, eleven, and the first half of twelve in the case of four-year high schools, or on work completed in grades ten, eleven, and the first half of twelve in the case of three-year senior high schools.

D. Beginning with admission to the fall semester 1963, students entering the College of Engineering must present the following credit:

1. *Social Studies.* Two units
2. *Science.* Two units (including only courses in physics, chemistry, and biology)
3. *Foreign Languages.* Two units (two successive years of any acceptable foreign language—see page 29, paragraph III D, 2). Students who do not meet this requirement may be admitted with a deficiency in foreign languages, but this deficiency will have to be removed. Credit in courses taken to remove the deficiency will not be counted toward the degree.

E. Beginning with admission to the fall semester 1964, the foreign language requirement for admission to the programs in the College of Liberal Arts and Sciences and to the fine arts programs in the College of Fine and Applied Arts may no longer be waived. All students entering these programs beginning with the fall semester 1964 must present two units of credit in one of the acceptable foreign languages, regardless of their scholastic rank in class on graduation from high school.

EXCEPTION: Students graduated from high schools which do not offer one of the acceptable foreign languages may be admitted without such language upon recommendation of the dean of the college concerned.

V. Transfer Student Admission Requirements

A person who has attended another college or university of recognized standing is considered for admission to the University of Illinois on presenting: (1) a transcript of his record in each

such college or university attended, and (2) a transcript of his secondary school work. To be eligible for admission, the student must meet the following requirements:

A. All requirements listed in paragraphs I and II, pages 26, 27 and 28, *plus:*

B. Scholastic Requirements:

1. Students who have completed (with passing or failing grades) forty or fewer semester hours of work in a recognized college or university, must have:

   a. A cumulative average of at least 3.0 in terms of the University of Illinois grading system. (See pages 62 and 63.)

2. Students who have completed (with passing or failing grades) more than forty semester hours of work in a recognized college or university must have:

   a. A cumulative average of at least 3.0 (C) in terms of the University of Illinois grading system on *all* college work (see "Grading System," page 62),

   b. *Plus* an average of at least 3.0 in the last term.

C. Conduct Requirements: Certification of honorable dismissal from each college or university attended.

D. Exceptions:

1. To paragraph V, A:

An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the admission requirements listed in paragraph I may be admitted if he presents at least thirty semester hours of credit in transfer with a 3.0 average (C) and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.

2. To the scholastic requirements:

Students who do not meet the scholastic requirements listed in paragraph V, B, may petition for admission on scholastic probation provided they meet the following minimum requirements:

   a. Students with forty or fewer hours of college work: (This exception does NOT apply to nonresidents of the State of Illinois or to applicants for the College of Engineering.)

      (1) Less than a 3.0 average but *more than* a 2.50 average.

b. Students with more than forty semester hours of college work:
(1) Cumulative scholastic average of at least 3.0,
(2) *But* less than a 3.0 average in the last term.

(Transfer students whose scholastic record is lower than that described in paragraphs V, D, 2a, and 2b are not eligible for admission.)

3. To the Conduct Requirement:

A student on conduct probation at another accredited college or university or one who has been dropped from such an institution for disciplinary reasons may petition for admission through the Committee on Student Discipline of the Senate of the University of Illinois.

VI. Special Scholastic Admission Requirements (in addition to requirements on pages 26, 27 and 28).

A. For Nonresident Students:

Applicants who are not residents of the State of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in paragraphs I and II, pages 26-27, and further provided that:

1. As high school graduates they ranked scholastically in the upper half of their class on graduation.

2. As transfer students with forty or less semester hours they present a collegiate scholastic average of at least 3.0 (C) in terms of the University of Illinois grading system.

3. As transfer students with more than forty hours, see Paragraph V, B, 2.

B. For Certain Colleges and Curricula:

1. Curriculum	*Scholastic Requirement*
a. Premedical, Predental, Preveterinary	
(1) High school graduates	Rank in upper half of graduating class.
(2) Transfer students	3.5 collegiate average.
b. Physics Curriculum (LAS)	
(1) High School graduates	Rank in upper half of graduating class.

c. Occupational Therapy (see also Paragraph 3) Prenursing Curriculum

(1) High school graduates	Rank in upper half of graduating class.
(2) Transfer students	3.0 collegiate average.

d. Curricula preparatory to Teaching Mentally Handicapped Children and Deaf and Hard-of-Hearing Children.

(1) High school graduates	Rank in top quarter of graduating class.
(2) Transfer students	3.5 collegiate average.

2. *College of Engineering* (except curricula in Architecture, Architectural Engineering, and Art). Transfer students must present at least a 3.0 overage. Transfer students with less than a 3.0 average will *not* be admitted.

3. *Occupational Therapy.* Applicants for this program must:
   a. Be less than thirty years of age.
   b. Pass a special health examination given by the University Health Service.
   c. Be recommended by the Director of Occupational Therapy. (The Director is located in Room W-425, Research and Educational Hospitals, 840 S. Wood Street, Chicago 12, Illinois.)

C. *For Students Ranking in the Lowest Quarter Scholastically in High School.*

In order to assist these students in making a wise decision about whether to enter the University or some other post-high school educational institution, or perhaps go directly into an occupation, the University conducts a special testing program. Inasmuch as this program is rather time consuming, it has been necessary to set application deadlines for this group of students. Therefore, in order to be eligible to register in a particular session, such students should adhere closely to the following procedure:

1. Submit admission application and all required credentials by deadline, as listed below:
   a. Applicants for the fall semester 1960: July 22, 1960

b. Applicants for the spring semester 1961: December 16, 1960

c. Applicants for the Summer Session 1961: April 21, 1961

2. Complete the special testing program in accordance with the appointment which will be sent to them after the Admissions Office has reviewed their records.
3. Consider the implications of a letter which they will receive from the Student Counseling Service advising them of their chances of doing successful work in the University (based upon their test scores and high school record).
4. Notify the Admissions Office *in writing* (after considering the Counseling Service letter) to confirm or cancel the admission application.

   If the admission application is confirmed, admission on *scholastic probation* will be granted.

VII. Admission By Examination

Applicants who do not meet the requirements for admission listed in paragraphs I, II, and III above may qualify for admission by passing one or more examinations as outlined below. NOTE: This section does not apply to applicants who are deficient in the scholastic requirements outlined in paragraphs V and VI, pages 32-34. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.

A. Entrance Examinations

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category. These entrance examinations are given three times a year, usually in September, January, and June. Applications to take these examinations must be filed in advance in the Office of Admissions and Records. However only those students who are applying for admission to the University are permitted to write these examinations.

1. Graduates of Unaccredited High Schools.

   a. Applicants who rank in the top 25 per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

   b. Applicants who are graduates of unaccredited secondary schools and rank below the top 25 per cent of their graduating

class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and specific college admission requirements.

2. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of *at least* four units of work in subjects to be designated by the University.
3. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.
4. Applicants who do not meet University admission requirements with respect to total units of credit, total academic units, majors and minor, or subjects required for admission to the college of the applicants' choice may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient.

B. General Educational Development Tests

Veterans of active duty with the United States Armed Forces or with the United States Maritime Service and adult nonveterans (nonveterans twenty-one years of age or older) who are not graduates of accredited high schools may qualify for admission to the University by passing the United States Armed Forces Institute General Educational Development Tests (high school level) under the following conditions:

1. Applicants seeking admission to the *College of Liberal Arts and Sciences* may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. Applicants whose G.E.D. scores are passing but below the minimum required for upper-half classification scholastically may qualify if they present high school credit from accredited sources in two successive years of an acceptable foreign language. Applicants desiring to enter specialized curricula in the College of Liberal Arts and Sciences for which mathematics is required (see page 28) may not qualify for such curricula by G.E.D. tests alone, but must present credit from accredited sources in elementary algebra and plane geometry.
2. Applicants seeking admission to the *College of Commerce and Business Administration* or the *College of Engineering* may

qualify by passing the G.E.D. tests and presenting credit from accredited sources in the required mathematics.

3. Applicants seeking admission to the *College of Physical Education* may qualify by passing the G.E.D. tests and securing the approval of the Associate Dean of Physical Education.

The University does not grant any credit for college level General Educational Development Tests.

VIII. Special Admissions

A student who is not eligible for admission on one of the plans described above may be admitted, with the approval of the Dean of Admissions and Records and the Dean of the College he wishes to enter, providing he submits evidence which clearly establishes his qualifications to do satisfactory work in the curriculum in which he wishes to enroll.

IX. Special Programs

A. The Advanced Placement Program

The Advanced Placement Program, administered by the College Entrance Examination Board, is designed for able high school students who are about to enter college and who wish to demonstrate their readiness for courses more advanced than those most frequently studied in the freshman year. Advanced classes are offered in many high schools in one or more of the following subjects: French, Latin, German, Spanish, English literature and English composition, American history, European history, biology, chemistry, mathematics, and physics. There is a national examination in each subject, administered by the Educational Testing Service, which is designed to measure the competence of the student in terms of the point at which he should begin his college study in that subject. The University encourages capable high school students to participate in the program.

The examinations are prepared by joint national committees of high school and college teachers. They are graded by other national committees on the following basis: 5, high honors; 4, honors; 3, creditable; 2, pass; and 1, fail.

The University of Illinois honors the advanced preparation defined, examined, and certified by the College Entrance Examination Board's Advanced Placement Program as follows:

1. In the subjects listed below, a grade of 5 or 4 assures the candidate of appropriate advanced placement and college credit equal to that given for equivalent course work at Illinois.

Languages	*Sciences*	*Humanities*
French	Biology	American History
German	Chemistry	European History
Latin	Mathematics	English Literature
Spanish	Physics	and Composition

2. A paper with a grade of 3 or 2 will be reviewed by the department concerned, which will determine the amount of credit and advanced placement to be granted.

B. Talented Student Program for High School Seniors

1. Talented seniors of Illinois secondary schools shall be permitted to enroll for courses at the University of Illinois.
2. Those talented seniors shall be recommended to the Dean of Admissions by the high school principal. The Dean of Admissions, the Head of the Department concerned, and the Dean of the College concerned, shall determine whether the student is capable of taking certain courses for University credit. Such students shall receive University credit upon the satisfactory completion of these courses. They shall be given advanced placement when they register in the University. They shall, prior to admission to the University as full-time students, be graduated from high school and meet the other University requirements.
3. The school administrators shall base their recommendations upon the merits of each individual case, taking into consideration the ability, grade point average, test results and the available time of each individual so recommended.
4. The courses taken by such talented seniors at the University shall be work over and above the regular secondary school curriculum.
5. The work load of each individual recommended for work at the University of Illinois should be determined by the local high school principal and the University.
6. Normally such work taken at the University of Illinois should not be used to accelerate a secondary school student's program at the high school level, but shall be used as a means of broadening and enriching that program.
7. Each such student will be subject to fees as outlined in the enclosed fee schedule.

. Transferring To Urbana

Students at this Division who intend to transfer to Urbana may do) by securing a release from the dean of their college on this campus.

This release is then presented to the Recorder, Room 15. Note: Architecture and Architectural Engineering students may transfer to Urbana only when they have reached the point in their curricula when they cannot obtain a full program of studies on this campus.

XI. Tuition and Fees

A. Semester Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in nine semester hours or more pay tuition of.....$75.00

Nonresidents registering in nine semester hours or more pay tuition of 250.00

Students taking eight semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in six semester hours or more pay each semester, as insurance for hospital and medical service, a fee of..... 8.00

(A student who presents evidence of participation in any other group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first ten days of instruction, for a refund of this fee. Refunds are not given on any other basis, but the insurance remains in effect for the entire semester instead.)

Laboratory, Library, and Supply Fee. All students registering in nine semester hours or more pay a laboratory, library, and supply fee of 12.0

Students registering for less than nine hours pay 6.0

Student Activities Fee. All students registering in six semester hours or more pay a student activities fee of 8.0

Deposits. Each student must make a deposit of $5 at the time of his first registration at this Division, regardless of the number of hours carried. An additional deposit of $10 ($15 in all) is required of students withdrawing military equipment. Chargeable against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory, military, and other equipment, etc. Any balance on deposit will be returned to the student in case he officially withdraws from the University. This refund of deposit will be made 60 days after the close of registration for the next regular semester following the student's withdrawal. The $10 military

deposit will be returned to the student, upon receipt of the military equipment, at the end of each school year.

Identification Card. Each student, on payment of tuition and fees each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment. A fifty cent fee is charged for the replacement of lost or destroyed identification cards.

B. Summer Session Fees

Tuition and fees are due and payable in full when the student registers.

Tuition. Illinois residents (except those holding scholarships) registering in five semester hours or more pay tuition of..... $37.50

Nonresidents registering in five semester hours or more pay tuition of 125.00

Students taking four semester hours or less pay $6 per semester hour if residents of Illinois, or $20 per semester hour if nonresidents.

Hospital and Medical Service Fee. All students registering in four semester hours or more pay, as insurance for hospital and medical service, a fee of 4.00

(A student who presents evidence of participation in any other group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first five days of instruction, for a refund of this fee. Refunds are not given on any other basis, but the insurance remains in effect during the entire eight weeks of the Summer Session instead.)

Laboratory, Library, and Supply Fee. All students registering in five semester hours or more pay a laboratory, library, and supply fee of 6.00

Students registering for fewer than five hours of instruction pay $3.00 for the Summer Session.

Student Activities Fee. All students registering in four semester hours or more pay a student activities fee of 4.00

Deposits. See description above.

C. Withdrawing from the University

Students leaving the University before the end of a semester or session must initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student being dropped for poor scholarship at the end of the semester.

D. Refunds of Tuition and Fees

In case a student withdraws from the University during the first ten days of instruction, the total amount of his tuition and fees will be refunded. After ten days and before the middle of the semester, a rebate of one-half the tuition and fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of the tuition and fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week. If a student withdraws from one or more courses, thereby reducing his study load to eight or less semester hours in the regular semester, or four or less hours in the summer session, a pro rata refund of tuition and fees will be made according to the rebate schedule, provided that such a reduction of study load occurs during the first ten days of instruction in the regular semester and the first five days of instruction in the summer session.

For refund of the general deposit, see section on "Deposits." For refund of the Hospital and Medical Service Fee, see note on pages 40-41.

E. Miscellaneous Fees

Service Charge for Deferred Fees. Arrangements for deferred fees are made directly with the cashier. A service charge of ten per cent of the amount of fees deferred, but not to exceed $3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded, **except** that a minimum service charge of $1 is retained by the University in all cases. The general deposit of $5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.

Change Fee. For every change of program slip issued at the request of the student, the fee is..... $1.00

Transcript Fee. Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record.

For each additional transcript the fee is..... 1.00

Late Registration Fee. Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

Special Examination Fee. For any special examination given in a course which has been failed, the fee is..... 10.00

Fee to Visit Courses. Persons not connected with the University who attend the classes as visitors pay for each course..... 10.00

Persons visiting courses, but who withdraw within ten days after paying their fees, may receive a full rebate of the visitor's fees. No rebate is allowed after this date.

Visitors may never write examinations for credit in courses they have visited.

Duplicate Identification Card Fee..... .50

XII. Veterans' Information

The Chicago Undergraduate Division has been approved to offer training under the following veterans educational benefits acts: Public Law 346, the World War II G.I. Bill; Public Law 550, the Korean G.I. Bill; and Public Laws 16 and 894, the Vocational Rehabilitation Acts. Questions concerning benefits under these laws may be referred to the Veterans Section, Office of Admissions and Records.

The University of Illinois has established the Office of Veterans' Counselor in the Office of the Dean of Students, Room 313. As a collateral duty, the Dean of Students gives special attention to the particular problems of veterans.

Authorization

To enroll under one of the above benefits at the Chicago Undergraduate Division, an applicant, in addition to applying for admission to this Division, must take the following steps:

Determine the course in which he will register and the highest degree toward which he plans to work. If there is any doubt as to the final vocational objective or the course to follow to reach it, some type of educational and vocational counseling should be received before completing application to the Veterans' Administration.

Make application to the Veterans' Administration, 2030 West Taylor Street, Chicago, for the proper training authorization. A copy of service separation papers must accompany this application. Applications should be filed as early as possible, and not later than the first day of classes.

The training certificate received from the Veterans' Administration should be brought to the University on the day of registration for classes. It will not be accepted before that time. Certificates received after the beginning of classes should be turned in at once to the Veterans Section, Office of Admissions and Records, Room 15.

Transfers Under the G. I. Bill

Veterans transferring from another school under the G. I. Bill must obtain a notice of interruption from that school (Form 7-1995) and submit it to the Veterans' Administration when requesting a supplemental training certificate for this University.

Veterans transferring between divisions of the University of Illinois must follow the above procedure for changing schools.

Choice of Course

Veterans applying for any educational benefits should be extremely cautious in choosing their courses. The veteran may jeopardize his benefits if he fails to do satisfactory work in the original course. If assistance in choosing the correct course is desired, the facilities of the University Student Counseling Service are available at all times (see page 49). The Veterans' Administration also will provide free counseling for any veteran.

Special Provisions

The fees listed on pages 40-41 are payable at the time of registration for classes. The Veterans' Administration will mail the first allotment check about six weeks after a veteran enters training.

The University of Illinois is required by the Veterans' Administration to submit a monthly attendance report for each veteran enrolled under P. L. 550.

Public Laws 16 and 894

Students receiving educational benefits under either of the federal Vocational Rehabilitation Acts should be certain that there is an authorization on file for them at the University by the time they are to register for classes. Early application for training should be filed with the Veterans' Administration Training Officer.

Military Scholarship

Any person who served in the Armed Forces during World War I or any time between September 16, 1940 and the official termination of the present national emergency and received an honorable discharge may qualify for a four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time of entering service. No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and Records, Room 15, Window E. The Military Scholarship may not be used during any period when the veteran is receiving financial aid for his education from the federal government.

Credit for Military Service

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science and physical education will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast

Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service, may be transferred upon the basis of evaluation by the Examiner and Recorder.

XIII. Selective Service Deferment

The Office of Admissions and Records will supply the required certificates for students who wish to apply for educational deferments under the regulations of the Selective Service System. Application should be made at Room 15, Window E, at the time the student completes his classification questionnaire. Information concerning educational deferments is available from this office.

SCHOLARSHIPS

Many students now attending the Chicago Undergraduate Division of the University of Illinois get scholarship aid. Many scholarships cover tuition, while others provide cash awards of various amounts.

In general, scholarships at the University of Illinois are awarded to the best-qualified students. While some scholarships have certain restrictions—that is, they are earmarked for students majoring in certain subjects or planning to follow specified careers—nearly all of them demand that the person who receives them has a high scholastic record and can show evidence of financial need.

You may get scholarships in a number of ways:

Competitive examinations, given in each county in April for general county scholarships; for agricultural and home economics county scholarships; and for one scholarship from each county to a child of a World War I veteran, to a child of a World War II veteran, and to a child of a Korean veteran. Your high school principal or county superintendent knows or will know the date and place. These scholarships are for Illinois residents only.

State-wide competitive examinations for new State Scholarship Commission awards. These tests are given in various locations of the state. Your principal or county superintendent has or will have the details. Like county scholarships, these are given only to Illinois residents.

Application to the University of Illinois Director of Undergraduate Scholarship Program for "University Scholarships." Entering freshmen applying for these scholarships must be in the upper half of their high school classes; transfer students must have a 3.75 ("B" minus) or better in college-level courses. Students now enrolled may apply for these scholarships for any year. Information may be ob-

tained from the Office of Admissions and Records, or from the Dean of Students or Dean of Women.

Appointment to a General Assembly scholarship by a member of the Illinois Legislature. Only Illinois residents are eligible.

Application for a scholarship from an outside agency. Some industries, groups, foundations, etc., give scholarships to promising freshmen. Ask your principal or counselor for details.

A limited number of scholarships offering free tuition are available to out-of-state students of superior ability who need financial help to be able to attend the University of Illinois.

Scholarship applications for any year should be made between January 1 and March 31 preceding the opening of the fall semester. Most scholarship awards are announced between April 1 and early July.

LOAN FUNDS

Loan funds have been established for the benefit of worthy students at the University who are in need of financial assistance to help pay their educational expenses.

Short-term emergency loans may be requested by new students as well as those who have been here a year or more. They are $5 to $100, and must be paid within 60 days, or by the end of the semester in which they are made, whichever date is earlier.

Long-term loans are not usually available to freshmen or new transfer students. A sophomore, junior, or senior who has been at the University a year or more may apply for a loan, regardless of whether or not he also is receiving scholarship assistance.

Federal loan funds are now available to superior students. Preference is given to students with a superior academic background who plan to teach in elementary or secondary schools, or whose academic background indicates superior capacity or preparation in science, mathematics, engineering, or a modern foreign language.

Application blanks and detailed information regarding loan funds may be obtained from the Dean of Students or the Dean of Women.

STUDENT EMPLOYMENT

For students who find it necessary to earn a portion of their expenses, there is a Student Employment Service in the Office of the Dean of Students. While this service does not guarantee to find a job for anyone, it does provide information and assistance to deserving students seeking part-time jobs in University offices and in business or industry in the Chicago area. Applications for part-time jobs should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule, at the time of registration, so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity rather than choice.

STUDENT WELFARE SERVICES

The University's interest in the individual student extends beyond the classroom to include the personal adjustment of each student to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling; extracurricular activities, both social and cultural; and advising and instruction in healthful living.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division. Before registration, the student is encouraged to avail himself of the services of the Dean of Admissions, the Dean of Students, the Student Counseling Service, and the dean of his college for information and advice needed to insure wise planning for his college career.

At registration time, an advisor helps the student select and arrange his courses, and special meetings afford him the opportunity to meet the deans. The deans of the various colleges, the heads of departments and all members of the faculty devote a large part of their time to advising students concerning their classroom work and programs. Students are urged to discuss specific educational problems with their instructors, who hold scheduled office hours for conferences with individual students. The problems of student welfare outside the classroom are handled chiefly by the Dean of Admissions, the Dean of Students, the Dean of Women, and the Student Counseling Service.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students is in charge of most matters of student welfare and extracurricular activities. The Dean of Students, the Dean of Men, the Dean of Women, and the Assistant to the Dean of Students are the administrative advisors to whom students may go for information and advice concerning student activities, insurance, loans, employment, personal problems, the interpretation of University regulations, and other matters. The offices of these advisers are open to any student throughout the day, and inquiries from parents and guardians are welcomed. Details concerning the services of the Office of the Dean of Students are outlined in the following sections.

Dean of Students. The Dean of Students is the administrative officer who is primarily responsible for the welfare of the student outside the classroom. He assists students in obtaining financial assistance in

the form of a loan, scholarship and/or part-time employment. He is charged with the direction, supervision, and coordination of the University agencies which are active in the guidance of students in extracurricular activities, and he participates directly through his chairmanship of the administrative committee on Finance and Audit for Student Organizations, through his duties as secretary of the Undergraduate Division Organizations Fund, his work as financial adviser to student organizations, and his membership on the Committee on Student Affairs. The Dean of Students assists individuals in finding housing. He also serves as supervisor of student employment, as veterans' counselor, as advisor to foreign students, as administrator of the voluntary Hospital and Medical Insurance plan for the faculty and staff, and as supervisor of the compulsory student plan.

Dean of Men. The Office of the Dean of Men is organized for the primary purpose of aiding men students. At the present time, the services of this office are being performed by the Dean of Students with the help of his Assistant. The work of the Dean of Men includes counseling and advising students on any matters which they may wish to bring to him. The Dean of Men takes an active part in student extracurricular activities and assists in planning many All-University functions. He also serves as adviser to Phi Eta Sigma, national scholastic honorary for first-year men students. All official University requisitions for student organizations, events, and affairs are initiated by the Dean of Men upon receipt of a written request from the student group concerned. Room reservations, publicity and use of equipment for all student activities and events are handled in this office.

Dean of Women. The Dean of Women is primarily concerned with the guidance of women students and with promoting the educational and social opportunities obtained from participation in student activities. The Dean of Women is available for individual and group counseling on any questions the students wish to discuss, such as, personal problems, financial aid—scholarship and loan funds—employment, and extracurricular activities. Besides being available for daily counseling, the Dean of Women serves as adviser to Alpha Lambda Delta, the national scholastic honor society for freshman women, the Activities Honorary Society, and the University Dance Committee. As Chairman of the Administrative Committee on Social Events, Calendar, and Recreation, the Dean of Women coordinates all social events, assists men and women students in planning and organizing special events by providing and accepting all requests for student social functions for the calendar, assists in planning many All-University functions, and prepares all materials for the Campus Events Calendar. The Dean of

Women also acts as liaison with the Housing Division for students transferring to Urbana.

The services of the Dean of Women are available to registered and prospective students.

STUDENT COUNSELING SERVICE

The services of counseling and clinical psychologists are available to both prospective and registered students at the Student Counseling Service. Psychological testing and counseling services are available to help students make more effective use of their intellectual and personality resources. Appointments for interviews are made by the departmental receptionist.

Students bring a variety of problems and concerns for consideration with the aid of their counselor: planning their vocational future, improving their reading and study skills, learning to cope with personal or family problems, promoting their development as persons, and establishing better relations with others.

The following paragraphs describe specific programs of the Student Counseling Service.

A. *Pre-entry Counseling and Testing.* A program of Freshman Guidance testing and individual counseling is offered by the Student Counseling Service for all graduating high school seniors who are considering attendance at the Chicago Undergraduate Division. The program is intended primarily for students who are not yet sure whether they should attend the Division, or who would like to feel more sure what program of studies to follow, or who would like to check their thinking on how to get a good start in college.

The Freshman Guidance Examinations provide an estimate of the student's high school background in mathematics, science, and social studies; measure skill in vocabulary, English usage, and reading; assess aptitude or talent for college studies; and attempt to identify areas of academic interest.

The test results are evaluated in an individual interview with a counselor, who will help the student to use test information as one basis for making his own decisions about the wisdom of attempting college work or as to the kind of college work which he should undertake.

Students may register for participation in this counseling-testing program during the last half of their senior year in high school, or during the summer after graduation, by writing or telephoning the Office of Admissions and Records at the Chicago Undergraduate Division.

B. *Individual Educational Counseling.* Before or during Orientation Week each entering freshman completes a battery of tests adminis-

tered by the Student Counseling Service. Review of his test scores with a counselor may help the student toward a more realistic self-judgment of his academic strengths, handicaps, and goals. Early recognition of deficiencies or of special talents may direct the student's efforts toward needed remedial work, or toward making fuller use of his special abilities. A student may be concerned about how well his abilities and interests match the particular curriculum in which he is enrolled, or he may inquire into his fitness for some other program of studies. Counselors also make available information about other colleges and universities, or about special training programs and professional schools. Facts available to students who are considering transfer to another school include institutional locations, expense budgets, scholarship and loan information, and admission requirements and procedures.

C. *Reading Improvement Groups.* A Reading Clinic is maintained for students wanting to increase their rate of reading or to improve their vocabulary and comprehension skills. The Reading Clinic offers programs for the better-than-average student who wishes to read faster and more effectively, as well as for the student in need of remedial training.

Pre-tests are administered, and reading instruction is based on individual needs indicated by test results. Periodic retests are given to measure progress, and work is terminated when the student has achieved his own goals.

D. *Study Skills Groups.* Each semester the Counseling Service conducts study skills groups to help students develop more effective methods of study by means of group discussion, demonstration, and laboratory practice. This program includes attention to such study techniques as outlining and notetaking, writing research papers, improving concentration and memory, and preparing for and taking examinations.

E. *Individual Vocational Counseling.* This service is offered to students who have not yet formulated a decision concerning their future work, or who are considering a change in their plans. The counselor seeks to help the student clarify his own vocational goals and the factors in his personal situation which need to be considered in choosing a vocation. Available guidance test scores are appraised, and additional tests may be assigned to meet the special needs of the student. In addition to test interpretation, the counselor can assist students in securing information about vocational trends and about educational and training requirements for various occupations.

F. *Career Planning Groups.* The Student Counseling Service conducts voluntary study groups for Liberal Arts students who want to

clarify their vocational goals as a basis for choosing a major. Discussion and individual testing focus on self-evaluation of abilities, interests, and personal needs as bearing on occupational choice.

G. *Personal Counseling.* Clinically trained psychologists assist students in the solution of personal and emotional problems. Students who wish such help may make an appointment for personal counseling. The staff recognizes and protects the confidential nature of the counseling interview.

THE SPEECH IMPROVEMENT LABORATORY

The services of the Speech Improvement Laboratory are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who have foreign accents, hearing deficiencies, or vocal, rhythmic, or articulatory problems are aided by the Laboratory, which also assists students with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical, teaching, or speech careers are aided in meeting professional speech requirements. There are no fees for these services, but some students may be asked to purchase a blank recording disk in order that permanent recordings of their voices may be made. The Speech Improvement Laboratory is located in the Student Counseling Service area on the third floor. It is advisable to make appointments in advance.

HOSPITAL AND MEDICAL SERVICE INSURANCE

All students enrolled and in attendance at the Chicago Undergraduate Division are eligible for the accident and health insurance, including special coverage for field trips, by paying the hospital and medical service fee. Students not taking the required number of undergraduate hours to be automatically assessed the hospital and medical service fee may elect to take the coverage by making application to the Cashier's Office after completing registration (within two weeks during a regular semester or one week in Summer Session, except first registration). Eligible dependents of an insured student, including spouse and unmarried dependent children under nineteen years of age, may also be insured by application of the student to the Cashier's Office within two weeks of his registration each semester.

Students intending to enroll for the first semester of the next academic year may elect to take the insurance for the entire summer vacation period by making application at the Cashier's Office between May 15 and June 30. The insured student's eligible dependents may also be included for this coverage.

Students enrolling in the Summer Session who are assessed the

hospital and medical service fee are covered only through the date of their last final examination of that session, and not for the entire summer unless they have met the requirements stated in the preceding paragraph.

This insurance plan provides specific benefits under each of the following types of situations: (1) when the student is hospitalized as an in-patient, there are benefits for doctor and hospital; (2) when any surgery is performed, a surgical benefit is provided; (3) when a student sustains an accidental injury, there is a limited allowance for treatment during the next seven days; (4) when the student is confined at home because of illness, and is under the care of a doctor, there is a limited benefit for doctor's visits and for medicines; (5) when an ambulance is required, there is a benefit limited to $25 maximum; and (6) under item 1 above there is a catastrophe benefit when the basic benefit pays less than four-fifths of the total bills incurred, and there is a consultant benefit of up to $25 when approved by the Director of the University Health Service. Students are urged to read the certificates given to them at registration to determine the exact benefits that apply to specific situations. If the student did not receive a certificate at the time of registration, or if there are questions pertaining to this insurance, the individual should request the Office of the Dean of Students, Student Insurance Administrator, University of Illinois, Navy Pier, Chicago 11, Illinois to supply the necessary information. The telephone number is WHitehall 4-3800, extension 103 or 104.

The entire hospital and medical service insurance fee is expended for sickness and accident insurance to cover each individual student. No portion of this fee is utilized for the maintenance of the University Health Service.

EXTRACURRICULAR ACTIVITIES

Student extracurricular activities are recognized as an important part of the student's life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. All questions pertaining to extracurricular activities should be directed to the Office of the Dean of Students, Room 313.

CLUBS AND ORGANIZATIONS

Many student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body. Interested students not on scholastic probation are invited to join the club or organization of their choice.

The majority of student activity groups meet weekly or twice monthly during the scheduled activity hour on Tuesday of each week and on the second and fourth Thursdays of each month.

Administration. Student activities and student government are under the supervision of the Dean of Students with the assistance of the Committee on Student Affairs, the Student Congress, and the joint student-faculty administrative committees made up of members of the two above-named groups. The function of each group is as follows:

(1) The Committee on Student Affairs is an official University committee appointed by the Senate of the Undergraduate Division to assist the Dean of Students in the development and supervision of student organizations and student activities. The committee is an advisory body on the formulation and execution of University Policy to the Dean of Students and an administrative body on the allocation and expenditure of funds. The committee is composed of students, faculty members, and administrative personnel.

(2) The Student Congress is composed of four officers and ten representatives elected at large and ten representatives elected from recognized student organizations. Through the Student Congress, a high degree of democratic government of the affairs of student activities is possible. Through the seven administrative committees (each made up of two members of the Congress and one faculty or staff member from the Committee on Student Affairs) many detailed functions are basically controlled by student representatives. Like the Committee on Student Affairs, the Student Congress reports recommended policies and decisions to the Dean of Students for his official approval.

(3) Joint student-faculty administrative committees assist in the supervision of student organizations. Each of these seven committees is composed of a faculty representative from the Committee on Student Affairs and two members of the Student Congress. Through these committees, the Code on Student Affairs provides a definite working relationship between the administration and the student body. The administrative committees review all matters referred to them, and make recommendations to the Committee on Student Affairs and the Student Congress for appropriate action.

Types of Activities. The student clubs and organizations open to students at the Chicago Undergraduate Division are many and varied. If the kind of activity which the student desires is not listed in the following paragraphs, he should consult the Dean of Students. New groups are formed when sufficient interest is apparent, and the type of organization which is proposed meets University requirements. Questions regarding membership in any activity should be directed to the Dean of Students, the faculty sponsor, or the officers of the group.

Opportunities for experience in journalism are provided by the weekly student newspaper, the *Pier Illini,* written and edited entirely by students. Winner of eight All-American awards presented by the Associated Collegiate Press, *Pier Illini* is open to all students with an interest in any form of writing, art, photography, etc. It offers students practical experience in newspaper work before they attend a professional journalism school. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph,* the University of Illinois engineering periodical. Contributions of student members to the publication of the UIC Writers Club, *Mosaic,* and of members of Alpha Lambda Delta in producing *Chi-Illini Cues* likewise offer opportunities to students interested in journalism.

The Pier Glass, published once each semester, is a magazine of the best themes written in freshman rhetoric. The ten or twelve students whose essays are chosen receive prizes, as well as the honor of being represented in the anthology and the satisfaction of seeing their work in print. Competition is keen, and every rhetoric section spends a class meeting in the friendly criticism of the current issue, comparing the merits of the prize-winning papers.

Cultural programs which supplement classroom work for students are offered by the Activities Honorary Society, the Cadet Association, Pi Kappa Delta (national forensics honorary), Pershing Rifles, and the Student Education Association. Similar purposes are served by three language clubs, and the Amateur Radio, Biology, Chess, Commerce, Geology, Humanities, International Relations, Inter-Varsity Christian Fellowship, Jazz, Lituanica, Mathematics, Newman, Collegians, Am-Pols, and Co-Ed Rifle Clubs. Engineering, architecture, chemistry, predental, prelaw, and premedical students may take part in the activities of their respective professional societies. Several are affiliated with national professional organizations. Athletic and physical education organizations include the Varsity Lettermen's Club, Men's Physical Education Majors Club, the Co-Recreation Association, the Cheerleaders, Orchesis (the modern dance organization), the Women's Athletic Association, and the Women's Physical Education Majors Club.

Opportunities for experience in music and drama are available through membership in the University Band, the University Choir, the University Orchestra, and the Pier Playhouse. Students who enroll in the musical organizations at registration and meet other requirements may earn academic credit for this work if they so desire. Several musical programs and plays are presented publicly each year.

All-University dances—informal and semi-formal—are planned, supervised, and sponsored by the University Dance Committee—a subcommittee of one of the seven administrative committees. This com-

mittee also assists in planning the Registration Dance and Freshman Mixer as well as assisting in planning the dances for Homecoming and Spring Carnival. The Dance Committee is also available to assist other organizations in planning social functions.

A committee composed of students and staff members is also appointed each year to direct, plan, and supervise a Spring Carnival for the purpose of providing an all-campus event, to allow students an opportunity to make a contribution to benefit the University, and to enable student organizations to increase funds in the treasury. A similar committee directs and supervises Homecoming events.

THEATRE AND CONCERT SERIES

By means of a Theatre and Concert Series, the University introduces its students to the cultural and intellectual life of Chicago.

At the beginning of the fall semester, sets of coupons are placed on sale through the University Bookstore at a substantial discount. These coupons are redeemable for tickets for specific performances. Included are an opera, a ballet, a symphony concert, a play and an art movie. Thus the series is a generous sampling of worthwhile entertainment.

UNIVERSITY CINEMA SERIES

Through the University Cinema Series program, students and staff have the opportunity to view outstanding motion pictures at no cost. They are normally scheduled once a month in the third floor lounge.

HONORS

Designation as an Edmund J. James Scholar is available to an entering freshman of superior scholastic ability who was in the highest ten percent of his high school class. Designation as a James Scholar does not carry with it a monetary award, but candidates for the award who are in need of financial assistance are invited to apply for a University scholarship. The benefit to James Scholars is utilization of the University's facilities to provide education at a depth consistent with the student's superior scholastic ability; the challenge of maximum intellectual development; the stimulation of association with one's mental peers; these without eliminating the personal growth and development which should be a part of college.

Students who achieve a grade average of 4.5 during the freshman year may be eligible for membership in one of the national scholastic honor fraternities. Women who make an average of 4.5 in 15 hours of academic work during their first semester, or an average of 4.5 in 30 hours during their first year, may be initiated into Alpha Lambda Delta. Men whose average is 4.5 based upon 12 or more hours in the

first semester, or 4.5 for the entire freshman year, are eligible for membership in Phi Eta Sigma.

Additional honors include: The Ernest C. VanKeuren award (for excellence in the humanities); the B. B. Freud award (for excellence in chemistry); the Roscoe E. Harris award (for excellence in physics); and the Dean's List of the individual colleges (for all students with grades of "B" or better in all courses).

HONORS DAY

Honors Day is observed at the Chicago Undergraduate Division as an occasion upon which public recognition is given those students who excel in scholarship. The families and friends of the honor students are invited to attend the annual convocation, in which students and members of the faculty participate. The printed program contains the names of students to whom honors have been awarded and also the elections to those honorary societies which meet the standard of scholarship approved by the Senate Committee on Honors.

Two types of honors are awarded: Class Honors and College Honors. To be eligible for Class Honors, a student must be in the highest ten percent of his class in his college and have not less than a 4.0 average. To be awarded College Honors, a student must be in the highest three percent of the class and have a minimum average of 4.5. Grades used in determining honors for students are those on file in the Office of Admissions and Records.

FORUM SERIES

Each year six all-University programs are presented in the Auditorium under the direction of the Forum Series Committee. The Forum Series gives students the opportunity to hear distinguished speakers and to see and hear cultural programs of general interest. The programs are financed by a portion of the student activity fee. Admission is free to all students within the seating limitations of the Auditorium. Selection of programs and other administrative details of the series are the responsibility of the Forum Series Committee.

Forum Series programs are usually presented during the activity hour on the third Thursday of October, November, December, February, March, and April. Special programs are arranged to meet occasions of special significance.

FORENSICS

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating, discussion, and individual events. All students, including those without previous experience, may take part in the forensic activities.

The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the area have included colleges and universities from Florida, Texas, Iowa, Michigan, Missouri, Ohio, and New York. Speakers from the Chicago Undergraduate Division also attend tournaments in Illinois and nearby states, where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition. It has won the Chicago Area, the state, and the regional championships, and in 1952, 1953, 1954, 1956, and 1958 represented the East Central States area in the national championship tournament at West Point, New York.

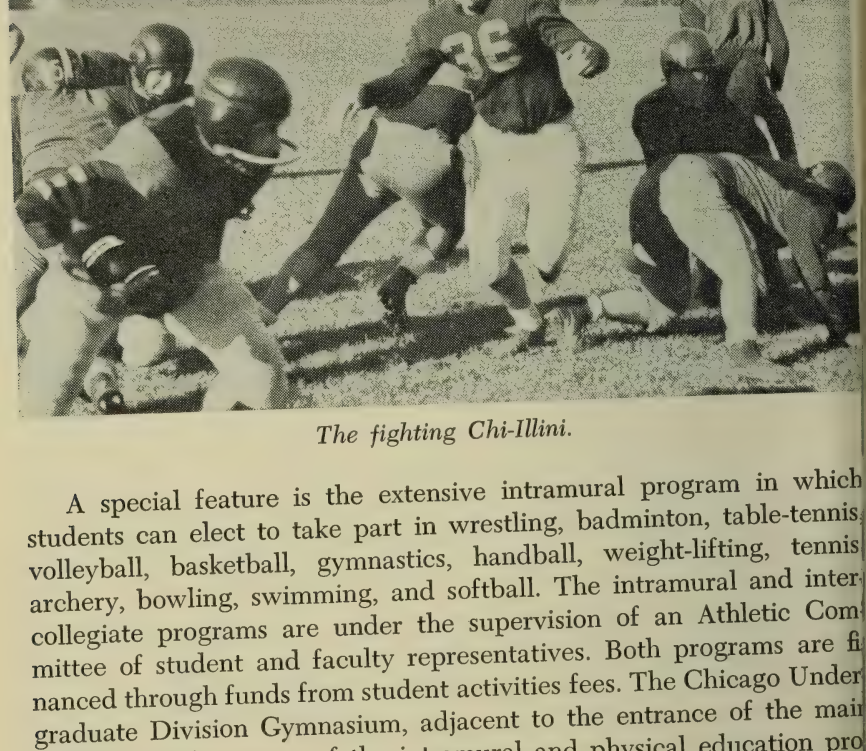
Problems of national and international interest are the topics for public discussion and panel presentations, both on and off campus. These programs, usually followed by audience participation, are sometimes joint presentations with other colleges and universities. Chicago Undergraduate Division speakers are often featured on adult forum programs.

The Chicago Undergraduate Division serves as national headquarters for the National Contest in Public Discussion. It holds membership in the Illinois Intercollegiate Debate League, the Illinois Intercollegiate Oratorical Association, the Chicago Area Debate League, and Pi Kappa Delta. The last of these is a national honorary with 31,000 members and chapters in approximately 270 colleges and universities.

The Chicago Undergraduate Division has been host for some noteworthy forensic events. The Cambridge university debate team met two UIC speakers before an audience of 2,200 in the fall of 1955, and in the spring of 1957 the annual tournament of the Illinois Intercollegiate Debate League was held on this campus. The annual Freshman-Sophomore tournament in December has attracted as many as thirty-nine visiting colleges from eight states, and the annual tournament for high schools in January includes leading teams located within seventy-five miles of Chicago.

ATHLETICS

The Chicago Undergraduate Division participates in eleven varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, soccer, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen in good standing are allowed to participate in varsity sports.



The fighting Chi-Illini.

A special feature is the extensive intramural program in which students can elect to take part in wrestling, badminton, table-tennis, volleyball, basketball, gymnastics, handball, weight-lifting, tennis, archery, bowling, swimming, and softball. The intramural and intercollegiate programs are under the supervision of an Athletic Committee of student and faculty representatives. Both programs are financed through funds from student activities fees. The Chicago Undergraduate Division Gymnasium, adjacent to the entrance of the main building, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the gymnasium which has floor space for eight full-size basketball courts.

A staff of sixteen coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

UNIVERSITY SERVICES

UNIVERSITY LIBRARY

The University Library provides all the books, related material and professional services that meet the needs of students and faculty for information, research, recreation, and stimulation of the mind.

At present the book collection totals over 100,000 carefully chosen volumes. The Library is receiving yearly over 850 periodicals and several indexing service publications. Back files for many of these titles have been bound and are available for permanent reference use.

open shelves. An excellent collection of 8,000 general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories has been assembled. Extensive collections of pamphlets, vocational guidance materials, and college catalogs are provided. A depository collection of U.S. Government publications from September, 1957, to date is available. More than 20,000 army, topographical, and state highway maps are also to be found. A comprehensive card catalog and modern microprint and microfilm reading

Reference, research, and recreation in the library.

machines are available. The Library also has the catalogs of the U.S. Library of Congress, Bibliothéque Nationale of France, and British Museum.

As an added service for students and faculty, the Library maintains photo reproduction facilities in the Reference Department and in the Fine Arts Reading Room. A nominal fee per page is charged for this service.

The main emphasis of the Library is placed on individual, personal service to faculty and students through general reference and reader's advisory assistance plus the library staff liaison with the teaching program and student activities. Formal and informal instruction in the use of library resources and facilities is offered to all

undergraduates. Displays of new and outstanding books of special and unusual interest are maintained in the reading rooms and on the bulletin boards in the lounges and corridors.

The Library has three service areas. (1) The open-shelf Main Reading Room handles the basic collection and is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities in addition to well-lighted study space for several hundred readers. It also contains the foreign language collection and the circulating collection of phonograph recordings. (2) The Reserve Book Station is located across from the bus terminal at the west end of the Pier and helps to make assigned reading materials conveniently available. (3) The Fine Arts Reading Room is at the far east end of the Pier on the second level. It contains the collection of art, architecture and music books and offers special facilities for listening to musical and nonmusical recordings via earphone as well as in the soundproof Library Listening Room. It also provides a free lending service of reproductions of famous paintings.

While classes are in session, the Main Reading Room is open Monday through Friday from 8 a.m. to 4:30 p.m. The Reserve Book Station and the Fine Arts Reading Room are open Monday through Friday from 8:30 a.m. to 4:30 p.m. During intersession and vacation periods, the Reserve Book Station is closed and the Main Reading Room and the Fine Arts Reading Room operate on an 8:30 a.m. to 4:30 p.m. schedule.

Time for a snack.

FOOD SERVICE

The University operates nonprofit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the building. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the building, adjacent to the reception lounge. In addition, a dining room at the east end of the building offers cafeteria-style service to members of the faculty and staff.

UNIVERSITY BOOKSTORE

The University Bookstore is operated by the University to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8:30 a.m. to 6 p.m.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago

Are you sick?

Undergraduate Division. Physical examinations are required of all students prior to the time of their first registration. These examinations are given by the staff of the University Health Service without cost; however, the student may elect to be examined by his own physician at no expense to the University. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students without charge.

The staff of physicians also instructs classes in hygiene and sanitation. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations.

It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5 p.m. daily and during vacation periods.

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be started in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Men and women entering the University with fewer than sixty semester hours of credit are required to secure four semesters of credit in physical education including the amount transferred. Those entering with sixty semester hours or more are exempt from the requirement in physical education.

2. Two semesters of rhetoric (Rhetoric 101 and 102) are required. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric, Rhetoric 200.

THE GRADING SYSTEM

The following grades are given in the University of Illinois: A—Excellent, B—Good, C—Fair, D—Poor (lowest passing grade), E—Fail-

ure. The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean of his college and on payment of a fee of $10 (but not within ten days of the final examination period), or he may take courses in sequence, with the approval of the department.

Other symbols in use are:

W—Withdrawn from the course without penalty.

Ex—Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee, but becomes a failure if not removed during the first semester that the student completes in residence following the giving of the grade of "Ex.")

Ab—Absent from the final examination without excuse; counts as a failure. See under "Failure" for method of earning credit in a course in which an "Ab" grade has been received.

Rep—Replaces grade of "Ex" when course in which "Ex" grade was received is repeated by the student.

Inc—The grade of "Incomplete" is no longer authorized except in the required work in physical education. Except in this department, instructors are required to assign a definite grade representing both the quality and the quantity of the work accomplished.

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A=5 grade points; B=4; C=3; D=2; E=1; Ab=1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn three hours of A, six of B, three of C, two of D, and four of E, the computation of your grade-point average is as follows:

Grade	Hours	Weight	Grade Points	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	
E	4	1	4	
	18		56	$\frac{56}{18}=3.11$

Your grade-point average is 3.11.

Definition of a Semester Hour. In the University, a semester hour of credit represents one classroom hour of fifty minutes weekly of the student's time for the duration of one semester in lecture or recitation, plus the time necessary for preparation; or a longer time in laboratory or other exercises for which outside preparation is not required. It is expected that most students will spend two hours preparation for one hour a week of lecture or recitation. Each University semester hour credit is thus understood to represent at least three hours of the student's time, and the credit value of a course is calculated in semester hours on that basis.

PROFICIENCY EXAMINATIONS

Proficiency examinations, similar to the regular semester examinations, are available in courses normally open to freshmen and sophomores; the student must obtain the consent of the head of the department concerned. There is no fee charged for these examinations. A student who passes a proficiency examination is given credit toward graduation, provided that this does not duplicate credit counted for his admission to the University and the course is acceptable in his curriculum. The grade in proficiency examinations is "pass" or "not pass," but no student is given a grade of "pass" unless he has made at least "C" in the examination. No official record is made of failures in these examinations, and grades received on proficiency examinations are not considered in computing averages.

Proficiency examinations are given under the following restrictions:

1. They may be taken only by persons who are in residence or, after having been in residence, are registered in a correspondence course; or who are candidates for degrees and need no more than ten semester hours credit to complete the requirements for their degrees;
2. They may not be taken by students who have received credit for more than one semester of work in the subject in advance of the course in which the examination is requested;
3. They may not be taken to raise grades or remove failures in courses.

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Through training in modern business practices and in the fundamentals of economics, the College of Commerce and Business Administration seeks to develop in its students the abilities necessary for responsible positions in business and government. It offers a unified program of basic studies for freshmen and sophomores and a variety of fields of concentration for juniors and seniors. It is primarily this unified program for freshmen and sophomores which is offered at the Chicago Undergraduate Division. Though the factual contents of many of the courses are directly useful in specific vocations such as accounting, banking, selling, and teaching, students should expect to serve an apprenticeship in the fields they enter after graduation from this college, if they wish to prepare themselves for higher positions. While concentrating in a special field, they are required to elect courses offered in other colleges and schools of the University and to secure as liberal an education as possible to avoid the narrowing effects of overspecialization.

The program for the first and second years is organized around a nucleus of courses in accountancy and economics, mathematics and science, language and literature, and rhetoric and speech. While this program is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies for those who are in college only two years in preparation for work in the business world. Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the College of Education or to the College of Journalism and Communications, as well as to advanced work in the College of Commerce and Business Administration. Students transferring to other colleges after completing the two-year program do not receive their degrees from the College of Commerce and Business Administration but from the college to which they transfer.

In his last two years, in addition to completing the college general education requirements and the college general business education requirements, the student must complete one of the seventeen fields of concentration listed on page 70. These fields overlap to some extent in that they deal with the common problems of business and public affairs. A student electing any one field of concentration ordinarily takes a substantial number of courses in other fields. The program leads to the degree of Bachelor of Science in the chosen field. For degrees from both the College of Commerce and Business Administration and the College of Law, see page 67.

New freshmen and transfer students have special advisors during the registration period to help them plan their programs.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must:

1. Fulfill general University requirements as to registration, residence, scholarship, and fees.

2. Have a total of 126 credit hours excluding Physical Education and Military, of which not less than sixty credit hours must be in Accountancy, Business Law, Economics, Finance, Management, and Marketing. Business Education courses may be included in the fields of Commercial Teaching and Secretarial Training. In Commercial Teaching and Commerce and Law only forty-five such hours are required, while in Industrial Administration and in Personnel Management the number of such hours is fifty.

3. Complete courses included in University requirements, College General Education requirements, and College General Business requirements. (See pages 69 and 70.)

4. Complete the requirements for one of the fields of concentration. (See page 70.)

5. Have a minimum average of 3.0 for all courses counted toward graduation, a 3.0 average for those courses taken at this university, and a 3.0 average in 200 and 300 level courses in the field of concentration. Physical Education and Military are not counted in the graduation average.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include business law, management, marketing, anthropology, history, philosophy, political science, psychology, and sociology, as well as additional courses in geography, mathematics, science, literature, foreign language, art, architecture, or music. Any advice desired on these electives may be obtained at the office of the dean or from the advisor at the time of registration.

Special Requirements

COLLEGE ALGEBRA: All students entering the College of Commerce and Business Administration without credit in college algebra must take a Mathematics Placement Test to determine whether they should take Mathematics 103, Mathematics 112, or no college algebra. No credit for Mathematics 103 is allowed toward graduation.

BUSINESS LAW: Students planning to major in accountancy or management must take Business Law 201 and 202 rather than Business Law 100; however, a student may take Business Law 100 followed by Business Law 202 with reduced credit.

LITERATURE OR LANGUAGE: Students must obtain credit in six hours of English and/or American literature or a reading knowledge of a modern foreign language equivalent to that resulting from four semesters of study in college. If a student has completed four years of one modern foreign language in high school, he has fulfilled the literature or language requiremnt of this college. Literature may be taken in the sophomore year. Students must select courses that require sophomore standing or above.

SCIENCE OR ADVANCED MATHEMATICS: Courses to fulfill this four-hour requirement may be taken from the following: biology, chemistry, geology, physics, physical science, and mathematics. Mathematics 101, 102, 103, 112, and 161 are not accepted as advanced mathematics.

Commerce and Law

Students interested in obtaining a legal education may take their prelegal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business, corporation, or income tax law. The general requirements are the same as those for all Commerce students shown on page 69. The third year includes requirements of special value to the prelaw student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 96 hours, excluding Physical Education and Military, in the College of Commerce and Business Administration and thirty hours in the College of Law, including all required courses and all other graduation requirements, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. The approved program for this field for the first two years is shown on page 70.

Prejournalism

Students desiring to enter the College of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The general program for this purpose is the same as that shown on page 69.

GENERAL REQUIREMENTS

Normally students must register for not less than fourteen nor more than eighteen credit hours in each semester. Students must take required courses in Groups I, II, and III in the semesters indicated for each course (see page 69). A required course which is failed must be retaken the following semester.

The following graduation requirements are for students entering the College of Commerce and Business Administration after June 1, 1958. For graduation requirements prior to June 1, 1958, refer to the appropriate bulletin.

The requirements for graduation, as stated in Groups I, II, and III (page 69), apply to all fields of concentration except commercial teaching. For a complete statement on commercial teaching, see page 70.

Sample Program for All Commerce Students (Excepting Commercial Teaching)

FIRST YEAR — FIRST SEMESTER	17 HOURS
Accy. 101	3
Rhet. 101	3
Econ. 100	3
Math. 103	3
Science or Advanced Mathematics	4
Physical Education	1

SECOND YEAR	16 or 17 HOURS
Accy. 106 or 108 (106 recommended)	3
Econ. 102	3
Rhet. 151	3
Literature or Language	3 or 4
Electives from Group II	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Accy. 105	3
Rhet. 102	3
Econ. 136 or 138	3
College Algebra	3
Speech 101	3
Physical Education	1

	16 or 17 HOURS
Econ. 103	3
Econ. 170	3
Literature or Language	3 or 4
Choice from Group II or III	6
Physical Education	1

Requirements for all Commerce Students

(Except Commercial Teaching. See page 70)

	CREDIT HOURS	NORMAL SEMESTER
I. University Requirements. All available at the Chicago Undergraduate Division.		
Military[1]	4	1, 2, 3, 4
Physical Education	4	1, 2, 3, 4
Rhetoric 101, 102	6	1, 2,
Total	14	
II. College General Education Requirements. All available at the Chicago Undergraduate Division		
Economics 100—Introduction to Business (strongly recommended)	(3)[2]	1
Economics 136—Economic History of the United States or Economics 138—Introduction to the Economic History of Modern Europe, or Geography 105—Introductory Economic Geography	3	2
Literature or Language[3]	6 to 16	3, 4
Mathematics 103—Introduction to College Algebra and Mathematics 112—College Algebra[4]	0 to 3	1, 2
Rhetoric 151—Business Letter Writing	3	3 or 4
Science or Advanced Mathematics[5]	4	1
Social Science (Anthropology, History, Philosophy, Political Science, Psychology, or Sociology) a minimum of six hours; a minimum of three hours of advanced economics.	9	3 or 4
Speech 101—Principles of Effective Speaking	3	1, 2, 3 or 4
Additional hours in Language, Literature, Advanced Mathematics, Science, Social Science, Art, Architecture, Music, Humanities, and Geography to bring the total of this group, excluding Economics 100, to 36 credit hours	0 to 11	2, 3, 4
Total	36	
III. College General Business Education Requirements. All except those shown with an asterisk are available at the Chicago Undergraduate Division.		
Accountancy 101—Principles of Accounting	3	1
Accountancy 105—Accounting Procedure	3	2
Accountancy 106—Elementary Cost Accounting (recommended), or Accountancy 108—Intermediate Accounting	3	3
Business Law 100—Basic Principles of Business Law (See page 106)	3	4
Economics 102, 103—Principles of Economics	6	3, 4
Economics 170—Elements of Statistics	3	4
Finance 250—Money, Credit, and Banking*	3	
Finance 254—Business Finance*	3	
Management 101—Industrial Organization and Management	3	4
Marketing 101—Principles of Marketing	3	4
Total	33	

[1]Not required if first sixty credit hours are taken at the Chicago Undergraduate Division.

[2]For freshmen only. Students with thirty credit hours or more should not take this course.

[3]If literature is elected, six hours of American or English literature requiring sophomore standing will satisfy the minimum requirement. If language is elected, it must be a modern foreign language and the equivalent of four semesters when pursued in college must be taken to satisfy requirements. (see page 67)

[4]The placement examination will determine the mathematics course the student will take. Each student must have Mathematics 112 to complete this requirement, unless the placement test indicates that he already has knowledge equivalent to this. The only students exempted from the placement test are those who have college credit in college algebra. (See page 67)

[5]If science is elected it may be any laboratory science (geography is not included here). If mathematics is elected it may be any course in advance of college algebra, trigonometry included. (See page 67)

IV. Field of Concentration Requirements and Free Electives.
Sufficient credit hours must be taken here to make a grand total of 126 credit hours, excluding Physical Education and Military Science. None of the required courses in the fields of concentration are available at the Chicago Undergraduate Division.
Fields of Concentration:
Accountancy
Commerce and Law
Commercial Teaching (special program)
Economics of Government and Business, Public Utilities, and Transportation
Economic History
Economic Theory
Finance
General Economics
Industrial Administration
Insurance
Labor Economics
Management
Marketing (nine sub-fields)
Personnel Management
Secretarial Training
Statistical Economics
Urban Land Economics

Questions should be directed to the Associate Dean of the College of Commerce and Business Administration, Room 27.

Curriculum Preparatory to Teaching Commercial Subjects

For the degree of Bachelor of Science in Commercial Teaching. A mimimum of 126 hours of credit, in addition to military and physical education, is required for graduation.

For a major, a minimum of forty-five credit hours in courses in accountancy, business education, business law, economics, finance, management, and marketing is required for graduation in this field of concentration. However, thirty-two of these hours must be exclusive of economics.

For a minor, the student must have, in addition, an approved teaching minor outside the commerce field.

Continuation in this curriculum requires admission of the student to advanced standing in teacher education. Admission to advanced standing is determined on the basis of the applicant's academic and personal qualifications for teaching. The completion of certain standardized tests is required. The record of an applicant whose academic average is below 3.5 is subject to special study.

FIRST YEAR FIRST SEMESTER	17 HOURS
Accy. 101—Principles of Accounting	3
Biology 101—Fundamentals of Biology	4
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Math. 112—College Algebra[1]	3
Rhet. 101—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR FIRST SEMESTER	16 HOURS
Accy. 106—Elementary Cost Accounting	3
Econ. 102—Principles of Economics	3
Geog. 105—Introduction to Economic Geography	3
Rhet. 151—Business Letter Writing	3
Speech 101—Principles of Effective Speaking	3
Physical Education	1

SECOND SEMESTER	16 HOURS
Accy. 105—Accounting Procedure	3
Biology (Botany or Zoology)	4
Ed. 101—The Nature of the Teaching Profession	2
Econ. 136—American Economic, History, or Econ. 138—European Economic History	3
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND SEMESTER[2]	17 HOURS
Econ. 103—Principles of Economics	3
Hist. 152—History of the United States	3
Mktg. 101—Principles of Marketing	3
Psych. 100—Introduction to Psychology	4
Sociol. 100—Principles of Sociology	3
Physical Education	1

[1]May require adjustment. See note 4 above.
[2]If there is room for electrives, they could include Business Law 100, Political Science 150 as specific requirements; Accountancy 108, American or English Literature, or Philosophy 105 as option electives; Management 101 as a free elective. Whichever ones are chosen would affect the junior or senior program in that respect.

COLLEGE OF ENGINEERING

To prepare men for professional work in engineering and architecture and for responsible positions of a technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and engineering sciences and their applications to the design, construction, and operation of industrial plants, buildings and homes, and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems similar to those of practicing architects and engineers. The curricula in architecture in the College of Engineering are offered under the Department of Architecture and Art A discussion of the curricula in architecture is presented following the curricula in engineering.

In addition to the fundamental and technological courses in each curriculum, cultural courses are required, such as history, economics, and rhetoric. Other courses are elective and are presented to provide the student with an awareness of the urgent problems of society and to develop a deeper appreciation of the cultural achievements of man. These socio-humanistic courses, recognized as fundamental background for the achievement of a full life are drawn from liberal arts, sciences, economics, sociology, fine and applied arts, and other sources.

At the Chicago Undergraduate Division the first two years are offered in the fields of aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, industrial engineering, mechanical engineering, metallurgical engineering, mining engineering, theoretical and applied mechanics, and the combined liberal arts-engineering curriculum. Those few required courses which are not available here are noted.

Instruction is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois to complete the courses leading to the degree.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work consisting of thirty to thirty-six semester hours,

acceptable to the faculty of this college, providing plans have been made toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Future engineers.

Electives and Options

Each engineering curriculum offers some elective opportunities which may be specified as technical, nontechnical, or social science or humanities. All technical elective courses must be chosen from departmental approved lists. Nontechnical, social science, or humanities electives may be chosen from the lists below; however, the student should make sure that he is fulfilling minimum requirements in each area as outlined in his curriculum.

An option is a group of related courses in a special field of subject matter.

Technical Electives

Chemical Engineering, Chemistry, and Mathematics—all courses.
Geology—all courses except Geology 102.

Nontechnical Electives

Commerce and Business Administration—all courses.
Geology 102

Hygiene—all courses
Liberal Arts and Sciences—all courses except those in astronomy, chemical engineering, chemistry, geology, and mathematics noted under technical electives.
Social Science and Humanities—all courses listed below

Social Science and Humanities Electives
Anthropology—all courses
Architecture 113, 214
Art 111, 112, 115
Economics—all courses except Economics 170
Foreign languages—any courses with a maximum of six hours credit toward humanities electives. Foreign students receive no credit for their native languages. The remaining two hours may be used as nontechnical electives.
General Engineering 220
Geography 104, 105, 123
History—all courses
Humanities—all courses
Literature—all courses in modern or classical literature
Music 130, 131
Philosophy—all courses
Political Science—all courses
Psychology—all courses except Psychology 135
Social Science 111, 112, 113, 116
Sociology—all courses

Common Program for Freshmen

The entrance requirements to the College of Engineering in mathematics are three and one-half units: algebra, two units; plane geometry, one unit; and trigonometry, one-half unit. It is recommended that students also take solid geometry in high school. Students continue to be admitted on the basis of a minimum of one unit each in algebra and plane geometry, but they are required to make up the deficiencies during their first year in college. This delays their graduation one semester unless steps are taken early to offset the deficiencies. It is recommended that such students attend a summer session preceding entrance into college or immediately following their first year, thus eliminating the extra semester at the end. A mathematics placement examination is given to all students presenting three and one-half or four units of high school mathematics. A passing grade on this examination is required for a student to enroll in analytic geometry the first semester. Students having college credit for algebra and trigonometry are not required to take this examination.

Freshman students who have had a year of chemistry in high school, who make a high score on the chemistry placement test, and who qualify for at least Mathematics 112 on the mathematics placement test may omit Chemistry 102 and 104. These courses are replaced by Chemistry 109, a five-hour course, and two additional hours of electives.

Transfer students should follow the curriculum listed in the Undergraduate Study bulletin for the year in which they entered the University of Illinois.

Common Program for Freshmen, All Engineering Curricula

FIRST YEAR FIRST SEMESTER 15 OR 16 HOURS		SECOND SEMESTER 18 HOURS	
Chem. 102 or 103[1]—General Chemistry	3 or 4	Chem. 104—Chemistry of Metallic Elements[1]	4
G.E. 100—Engineering Lectures	0	G.E. 102—Engineering Geometry	3
G.E. 101—Engineering Graphical Communication	3	Math. 133—Calculus	3
Math. 123—Analytic Geometry[2]	5	Physics 106—Mechanics	4
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Physical Education	1	Physical Education	1

Curriculum in Aeronautical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 17 HOURS	
Math. 143—Calculus	5	Math. 343—Advanced Calculus	3
M. E. 182—Manufacturing Processes	3	Physics 108—Sound, Light, and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Modern History or Political Science	4	Modern History or Political Science	4
Physical Education	1	Physical Education	1

[1]Students may use only three hours of Chemistry 103 towards degree in engineering. See note in paragraph on Common Program for Freshmen about substitution of Chem. 109 for Chem. 102 or 104.
[2]Math. 112 and 114 for those entering with two or three units of high school mathematics. This also applies to those who do not pass the mathematics placement examination.

Curriculum in Ceramic Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS		SECOND SEMESTER 18 HOURS	
Cer. E. 101—Introduction to Ceramic Engineering[1]	3	Cer. E.—102 Ceramic Processes and Equipment[1]	3
Chem. 124—Quantitative Analysis	5	Geol. 130—Mineralogy for Engineers[1]	3
Math. 143—Calculus	5	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Physical Education	1	Econ. 108—Elements of Economics	3
		Physical Education	1

[1]Not offered at Chicago Undergraduate Division.

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. See page 86.

Curriculum in Civil Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 OR 19 HOURS

C. E. 101—Elementary Surveying 3
Math. 143—Calculus 5
Physics 107—Heat, Magnetism, Electricity 4
T.A.M. 150 or 151—Analytical Mechanics (Statics) .....2 or 3
Social Science or Humanities Elective 3
Physical Education 1

SUMMER

C.E. 207—Summer Surveying Camp 5

SECOND YEAR SECOND SEMESTER 17 HOURS

Geol. 150—Geology for Engineers 3
Physics 108—Sound, Light, Modern Physics 4
T.A.M. 221—Analytical Mechanics (Dynamics) 3
T.A.M. 211—Elementary Mechanics of Deformable Bodies 3
Econ. 108—Elements of Economics 3
C.E. 195—Introduction to Civil Engineering...0
Physical Education 1

Curriculum in Electrical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS

Math. 143—Calculus 5
Physics 107—Heat, Electricity and Magnetism .4
Speech 101—Principles of Effective Speaking ..3
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Physical Education 1

SECOND SEMESTER 18 HOURS

Econ. 108—Elements of Economics 3
Math. 345—Differential Equations and Orthogonal Functions 3
E.E. 126—Electric Circuits and Fields 4
Physics 108—Sound, Light and Modern Physics .4
Physical Education 1
Social Sciences or Humanities or Technical Elective 3

Curriculum in Engineering Mechanics

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 16 HOURS

Math. 143—Calculus 5
Physics 107—Heat, Electricity, Magnetism ...4
T.A.M. 151—Statics 3
Nontechnical Elective 3
Physical Education 1

SECOND SEMESTER 17 HOURS

Math. 341—Differential Equations 3
Physics 108—Sound, Light and Modern Physics 4
T.A.M. 211—Analytical Mechanics (Dynamics) 3
T.A.M. 221—Elementary Mechanics of Deformable Bodies 3
Nontechnical Elective 3
Physical Education 1

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men without a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

FIRST YEAR

Common Program for Freshmen.

(Substitution of Chem. 106 for Chem. 104 is advised).

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 16 HOURS	
German or Nontechnical Electives[1]	4	German or Nontechnical Electives[1]	4
Math. 143—Calculus	5	Math. 343—Advanced Calculus	3
Physics 107—Heat, Electricity and Magnetism	4	Physics 108—Sound, Light and Modern Physics	4
Social Sciences or Humanities[1]	3	Physics 341—Electricity and Magnetism	4
Physical Education	1	Physical Education	1

[1]Students should consult departmental list of approved courses.

Curriculum in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula with their emphasis on test procedures and design, but who wish to secure a sound education in engineering principles and their application. Two sequences of basic engineering design are available with secondary fields of concentration in business, sales, technical journalism, or geological engineering. Other areas of study may be selected with the approval of the department.

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 19 HOURS		SECOND SEMESTER 17 HOURS	
C.E. 101—Surveying or M.E. 182—Manufacturing Processes	3	G.E. 221—Introduction to Design	3
Econ. 108—Elements of Economics or T.A.M. 150 or 151—Analytical Mechanics (Statics)	3 2 or 3	Math. 345—Differential Equations and Orthogonal Functions	3
Math. 143—Calculus	5	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	Speech 101—Principles of Effective Speaking	3
Physical Education	1	Elective	3
		Physical Education	1

Curriculum in Industrial Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS		SECOND SEMESTER 17 HOURS	
Econ. 108—Elements of Economics	3	Math. 263—Statistics for Engineers	3
Math. 143—Calculus	5	M.E. 184—Metal Processing or M.E. 183—Materials Casting	3
M.E. 183—Materials Casting, or M.E. 184—Metal, Processing	3	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	Speech 101—Principles of Effective Speaking	3
T.A.M. 150—Analytical Mechanics (Statics)	2	T.A.M. 211—Analytical Mechanics (Dynamics)	3
Physical Education	1	Physical Education	1

Curriculum in Mechanical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS		SECOND SEMESTER 17 HOURS	
Econ. 108—Elements of Economics	3	Math. 345—Differential Equations and Orthogonal Functions	3
Math. 143—Calculus	5	M. E. 184—Metal Processing, or M. E. 183—Materials Casting	3
M. E. 183—Materials Casting, or M. E. 184—Metal Processing	3	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity, Magnetism	4	T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 150—Analytical Mechanics (Statics)	2	Speech 101—Principles of Effective Speaking	3
Physical Education	1	Physical Education	1

Curriculum in Metallurgical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS

Chem. 124—Quantitative Analysis 5
Math. 143—Calculus 5
Physics 107—Heat, Electricity and Magnetism 4
Social Sciences or Humanities 3
Physical Education 1

SECOND SEMESTER 18 HOURS

Cer. E. 221—Pyrometry[1] 2
Met. E. 201—Physical Metallurgy[1] 3
Met. E. 203—Physical Metallurgy Laboratory[1] 1
Physics 108—Sound, Light and Modern Physics .4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Social Sciences or Humanities 3
Physical Education 1

[1]Not offered at Chicago Undergraduate Division.

Combined Program in Engineering and Liberal Arts and Sciences

See the description of this program on page 88 of the catalog.

ARCHITECTURE

Administered by the College of Engineering.

Architecture is a five-year course offered with two optional curricula. The general option offers advanced work in the design and planning of larger projects and the engineering option emphasizes structural design and theory. Both options lead to the degree of bachelor of architecture. The work in the first year is identical and the student makes his choice between the general option and the engineering option at the beginning of the second year. The engineering option requires calculus and more advanced theoretical and applied mechanics.

The general option in architecture contains a well-balanced program of creative and technical training. Together with the necessary practical experience, it prepares the student for State Professional Registration. The engineering option, likewise, prepares the student for registration, but it offers advanced study in structure in place of architectural design in the last year and qualifies the student in the field of architectural engineering.

Both options include general studies in the humanities and the social and physical sciences necessary for the understanding and appreciation of better environment.

The department of architecture offers excellent facilities in lecture, drafting, and class rooms. There is a departmental library of nearly 10,000 volumes, over 10,000 slides, and innumerable magazines, pamphlets, and graphic materials.

Since the Undergraduate Division is located in Chicago, the department has numerous opportunities to present outstanding architects, professional lectures, and inspection trips to museums, galleries, and various types of buildings under construction.

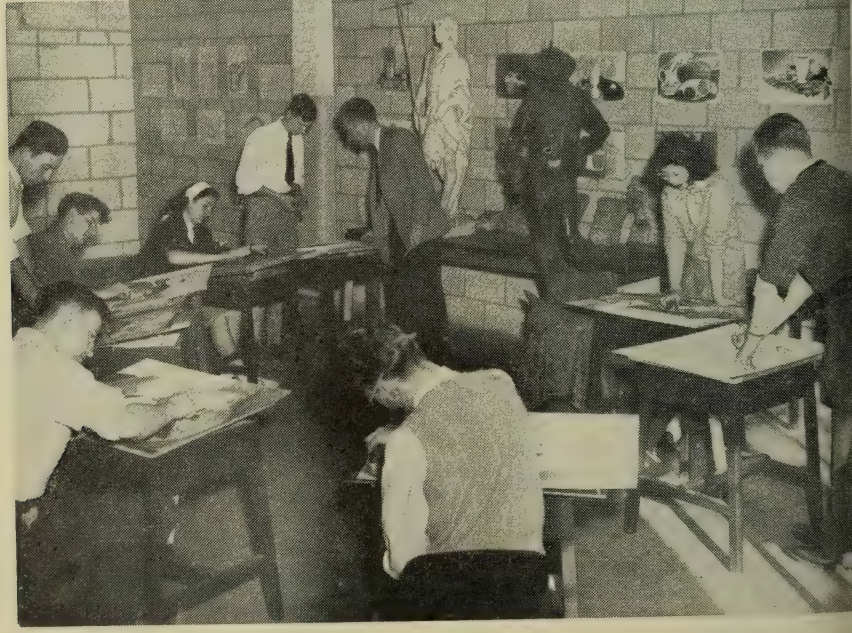
In the curriculum in architecture normal course progress in sequence is imperative. Students failing to complete any required course more than one semester later than the time designated in the curriculum will be prohibited from progressive registration in architectural courses until the deficiency is corrected.

Regulations governing students who register in the University of Illinois in architecture:

1. Because of space limitations at Urbana, Architecture students who register at the Chicago Undergraduate Division may not transfer to the Urbana campus until they have completed that portion of the program offered at the Chicago Undergraduate Division.
2. Such students who register at Urbana but who later transfer to the Chicago Undergraduate Division must complete that portion of the program offered at the Chicago Undergraduate Division prior to readmission at Urbana. *Note:* This does not apply to students who transfer to the Chicago Undergraduate Division for the Summer Session.

Electives

Electives provided in the two architectural curricula may consist of any courses given in the University not required in the curricula,



Art class.

not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131, 132; Geography 104, 105; Geology 101; Biology 101, 111; Speech 101, 141; Accountancy 101. Courses with prerequisite of sophomore standing which are acceptable as electives include Rhetoric 151; Economics 108; English 131; Political Science 150, 151.

Curriculum in Architecture (Five Years)

FIRST YEAR FIRST SEMESTER 15-17 HOURS

Art 181—Freehand Drawing 2
G. E. 107—Architectural Projections 2
Math. 111 or Math. 112—College Algebra .....5 or 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Elective 2
Physical Education 1

SECOND SEMESTER 16 HOURS

Arch. 101—Introduction to Architecture 3
Art 182—Freehand Drawing 2
G. E. 108—Architectural Projections 2
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND YEAR FIRST SEMESTER 16 HOURS

Arch. 131—Architectural Design 3
Arch. 141—Materials and Methods of Construction I 2
Art 183—Freehand Drawing 2
Physics 101—General Physics 5
Elective 3
Physical Education 1

SECOND SEMESTER 16 HOURS

Arch. 113—History of Ancient Architecture ..2
Arch. 132—Architectural Design 3
Arch. 142—Materials and Methods of Construction II 2
Art 184—Freehand Drawing 2
T.A.M. 171—Elementary Mechanics 3
Soc. 100—Introduction to Soc. 3
Physical Education 1

THIRD YEAR FIRST SEMESTER 16 HOURS

Arch. 233—Architectural Design 3
Arch. 241—Materials and Methods of Construction III 2
Arch. 214—History of Medieval Architecture 3
Art 281—Freehand Drawing 2
Sociol. 276—Sociology of the City 3
T.A.M. 172—Strength of Materials 3

Curriculum in Architectural Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 16-18 HOURS

Art 181—Freehand Drawing 2
G. E. 107—Architectural Projections 2
Math. 111 or Math 112—College Algebra .....5 or 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Elective 3
Physical Education 1

SECOND SEMESTER 16 HOURS

Arch. 101—Introduction to Architecture 3
Art 182—Freehand Drawing 2
G. E. 108—Architectural Projections 2
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND YEAR FIRST SEMESTER 16 HOURS

Arch. 131—Architectural Design 3
Arch. 141—Materials and Methods of Construction I 2
Art 183—Freehand Drawing 2
Math. 133—Calculus 3
Physics 101—General Physics 5
Physical Education 1

SECOND SEMESTER 17 HOURS

Arch. 113—History of Ancient Architecture ..2
Arch. 132—Architectural Design 3
Arch. 142—Materials and Methods of Construction II 2
Art 184—Freehand Drawing 2
Math. 143—Calculus 5
T.A.M. 150—Analytical Mechanics 2
Physical Education 1

THIRD YEAR FIRST SEMESTER 16 HOURS

Arch. 233—Architectural Design 3
Arch. 241—Materials and Methods of Construction III 2
Arch. 214—History of Medieval Architecture 3
Art 281—Freehand Drawing 2
Sociol. 276—Sociology of the City .....3[1]
T.A.M 221—Resistance of Materials 3
T.A.M.—Laboratory 1

[1] Soc. 100 is a prerequisite to this course.

ART

Administered by the College of Engineering.

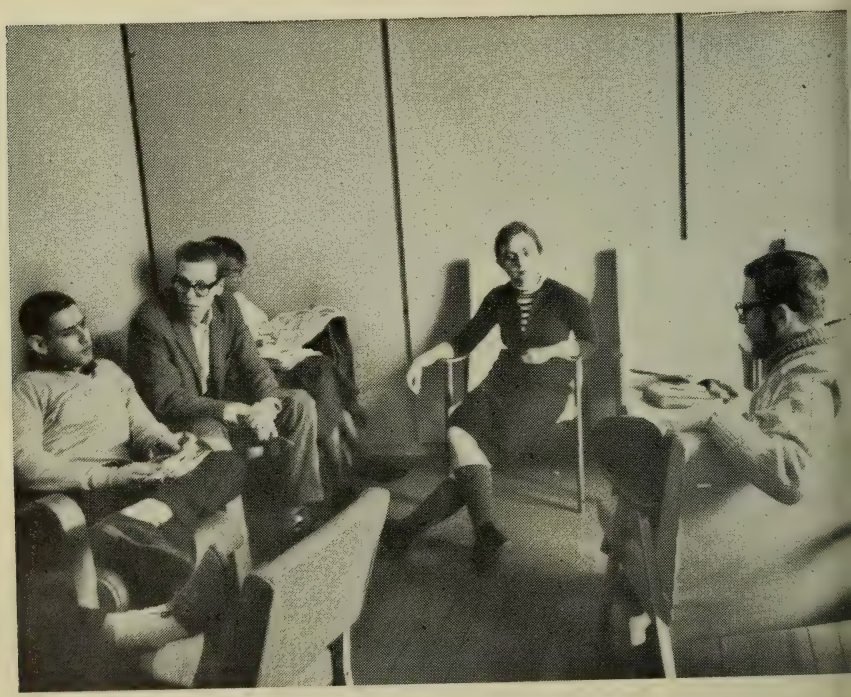
The curricula in Art permit a student to attain a proficiency in art and to secure a liberal education. The first year is basic and cultural and at the beginning of the second year the student chooses his field of specialization in one of the following: Advertising Design, Industrial Design, Art Education, History of Art, Painting. These curricula all require 130 semester hours of credit in addition to physical education and military training for the degree of Bachelor of Fine Arts.

Common Program for Freshman, All Art Curricula

FIRST YEAR FIRST SEMESTER 16 to 18 HOURS	
G. E. 107——Architectural Projections	2
Art 117—Drawing	3
Art 119—Design	2
Rhet. 101—Rhetoric and Composition	3
Foreign Language or Elective[1]	3 or 4
Hygiene 104—Personal and Community Hygiene	2
Physical Education	1
Military (men)	1

SECOND SEMESTER 14 TO 16 HOURS	
G. E. 108—Architectural Projections	2
Art 118—Drawing	2
Art 120—Design	3
Rhet. 102—Rhetoric and Composition	3
Foreign Language or Elective[1]	3 or 4
Physical Education	1
Military (men)	1

[1]Electives must be chosen from the areas of humanities, social sciences, and natural sciences, and must include a minimum of three hours in each area.



Informal chat.

COLLEGE OF LIBERAL ARTS AND SCIENCES

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education, with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years and to change his vocational objective without additional time. Such a change after the beginning of the junior year usually can not be made without loss of time. It is assumed that except for pre-medical students, upon completion of the two years' work in the Chicago Undergraduate Division, students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice, so that they may plan their work most effectively within the framework of University of Illinois requirements while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, physics, premedicine (complete three-year program), predentistry, prenursing, teacher-education, prelaw, preveterinary medicine, prejournalism, combined liberal arts-engineering, and one year of occupational therapy, prepharmacy, forestry, and home economics. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in the field of concentration before beginning the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum.

Under the guidance of an advisor, each student is expected to plan his own program within the general requirements outlined below.

Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 82, 83 and 84 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Physical Education—Four semesters.

Military Science—Four semesters, except that men transferring from the Chicago Undergraduate Division with sixty hours are exempt from this requirement.

Rhetoric—Rhetoric 101 and 102. (A student with "C" or "D" in Rhetoric 102 must pass a qualifying examination or take Rhetoric 200.)

Foreign Language—Equivalent of two college years in the same language.

U. S. History—One unit of American History in high school or History 151 and 152.

Mathematics—One unit of algebra and one unit of plane geometry in high school or Mathematics 101 and 102.

Biological Sciences[1]—Eight hours.

Physical Sciences[1]—Eight hours.

Humanities[1]—Eight hours.

Social Sciences[1]—Eight hours.

Major—Twenty approved hours in one department.

Minor(s) — Twenty approved hours in one or two departments.

Advanced hours—Thirty hours of credit in courses not open to freshmen and sophomores.

Residence — Either first ninety hours uninterrupted, or last thirty hours uninterrupted at the University of Illinois in Urbana. For students at the Chicago Undergraduate Division, the junior or senior year (thirty semester hours) must be taken at Urbana.

Average—3.0 ("C") minimum average in all work and in all work at Illinois.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of "D".

[1]The eight hours must be taken in approved sequence.

REQUIRED SUBJECTS

1. **Foreign Language.** A reading knowledge of a foreign language equivalent to that resulting from four semesters of study of a foreign language commenced in college. Completion of four years of foreign language in high school also satisfies this requirement. Proficiency examinations are offered in those languages which are included in the

curriculum of the College of Liberal Arts and Sciences. Students transferring from other colleges may present in satisfaction of the language requirement two years of college credit in a language not offered at the University of Illinois. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

2. Other Graduation Requirements. To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete

Chemistry lab.

these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

a. Basic Knowledge. From high school: one unit of American history or History 151 and 152; one unit of algebra and one unit of plane geometry or Mathematics 101 and 102.

b. General Education. An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.

Time out!

ELECTIVES

1. Liberal Arts and Sciences. Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

2. Other Colleges. Electives totaling as much as but not more than thirty-two hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list:

Accountancy. A total of 6 hours (including not more than one of the following courses: Accountancy 101, 201).

Agricultural Economics. A total of 6 hours.

Architecture. A total of 15 hours.

Art. A total of 15 hours, unless the student is majoring in history of art.

Aviation. A total of 3 hours.

Business Law. A total of 6 hours.

City Planning and Landscape Architecture. A total of 7 hours.

Dance. A total of 6 hours from Dance 240, 246.

Economics. All courses.

Education. A total of 20 hours.

Engineering. A total of 10 hours for LAS students. However, a student in the combined LAS—Engineering curriculum may count all engineering courses toward the two degrees.

Finance. All courses.

Food Technology. A total of 6 hours.

Forestry. A total of 3 hours.

Home Economics. All courses.

Horticulture. A total of 6 hours.

Hygiene. A total of 2 hours.

Journalism. A total of 10 hours.

Law. A student of senior standing with an average of 3.5 who has been in residence either the first two years or the last year of his prelegal work may take and count toward the A.B. degree not to exceed 32 hours in the University of Illinois College of Law. A student of senior standing with an average of 3.5 who has completed his first three years (not less than 88 semester hours excluding basic military and physical education) in residence at the University of Illinois (a student at the Chicago Undergraduate Division must complete his junior year with at least 30 semester hours at Urbana) and who transfers to an accredited college of law other than that of the University of Illinois may count 32 hours of law toward the A.B. degree. The applicant for the degree will petition the dean of the College of Liberal Arts and Sciences, who may approve the granting of the bachelor's degree if all the college and university requirements have been met, and the student is in good standing in the law school from which the credit is being transferred.

Library Science. A total of 20 hours.

Management and Marketing. A total of 6 hours. Typing, secretarial training, and shorthand may not be counted for credit.

Military. A total of 8 hours in advanced courses.

Music. A total of 15 hours approved by the director of the School, unless the student is majoring in music.

Physics. All courses.

SPECIAL CURRICULA

Chemistry and Chemical Engineering

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum, and should be taken in immediate sequence.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 123, and who do not have two units of high school credit in French or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing in the curriculum.

Curriculum in Chemistry

FIRST YEAR FIRST SEMESTER	17 HOURS
Chem. 107—General Chemistry[1]	5
German or French	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND YEAR FIRST SEMESTER	16 HOURS
Chem. 124—Quantitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	5
Electives[2]	3
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 108—General Chemistry and Qualitative Analysis	
German or French	
Math. 123—Analytic Geometry	
Rhet. 102—Rhetoric and Composition	
Physical Education	

SECOND SEMESTER	17 or 18 HOUR
Chem. 234—Organic Chemistry	
Math. 143—Calculus	
Physics 107—Heat, Electricity, Magnetism	
Electives[2]	2 or
Physical Education	

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

Curriculum in Chemical Engineering (Four Years)

FIRST YEAR FIRST SEMESTER	16 HOURS
Chem. 107—General Chemistry[1]	5
G. E. 101—Elements of Drawing	3
Math. 123—Analytic Geometry[3]	5
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER	15 to 18 HOURS
Chem. 108—General Chemistry and Qualitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	4
Rhet. 102—Rhetoric and Composition	3
Electives[2]	0 to 3
Physical Education	

SECOND YEAR FIRST SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5
German or French[4]	4
Math. 143—Calculus	5
Physics 107—Heat, Electricity, Magnetism	4
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 342—Elementary Physical Chemistry	3
Chem. 343—Physical Chemistry Laboratory	1
German or French[4]	4
Physics 108—Sound, Light and Modern Physics	4
T.A.M. 150—Analytical Mechanics (Statics)	2
Electives[5]	3
Physical Education	

Optional Curriculum in Chemical Engineering (Five Years)

FIRST YEAR FIRST SEMESTER	15 to 17 HOURS
Chem. 101 or 102—General Chemistry[6]	5 or 3
German or French	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 106—Inorganic Chemistry	5
German or French	4
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	

SECOND YEAR FIRST SEMESTER	17 HOURS
Chem. 110—Qualitative Analysis	5
German or French	4
Math. 133—Calculus	3
Physics 106—Mechanics	5
Physical Education	

SECOND SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5
German or French	4
Physics 107—Heat, Electricity, Magnetism	4
Math. 143—Calculus	5
Physical Education	

All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

Students without the required entrance credits in mathematics take Mathematics 112 (or 103), 114, 123, 133, and 143.

Two years of German and/or French are required for the B.S. degree. Two units of high school credit in either of these languages is equivalent to one year of college credit. Students entering without German or French in high school may substitute the second year of the language requirement for the eight hours of electives referred to in footnote 5.

Eight hours of electives must be chosen from the Divisions of Humanities or Social Sciences with the approval of the advisor. The courses are intended to broaden the engineer and provide an interest and liberal education in history, language, literature, philosophy, political science, or public speaking.

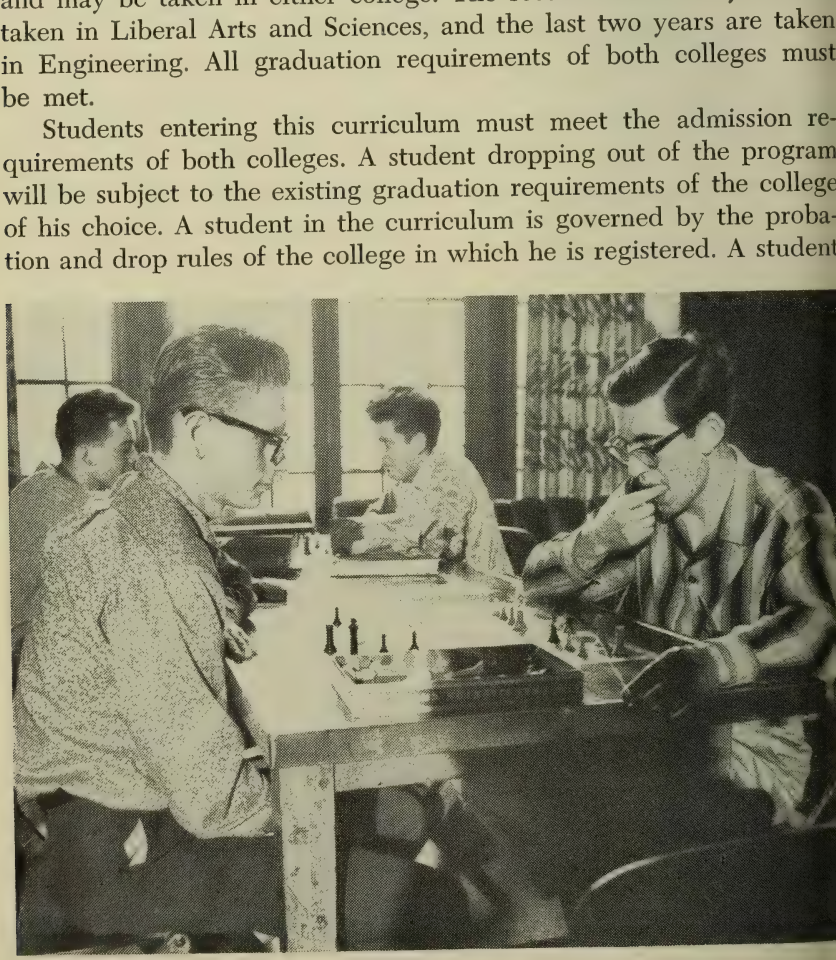
Students who qualify for Chemistry 107 should take the Chemistry 107, 108, 124, 342 sequence rather than Chemistry 101, 106, 110, 124 and thus have five additional hours of advanced electives.

Combined Program in Engineering and Liberal Arts and Sciences

The Colleges of Engineering and Liberal Arts and Sciences offer a combined program of five years leading to a baccalaureate degree from each college. This curriculum requires 166 hours for graduation, exclusive of physical education and military science. It is possible to combine any of certain engineering curricula—aeronautical, agricultural, civil, electrical, engineering mechanics, physics, industrial, mechanical—with any one of certain majors in Liberal Arts and Sciences—anthropology, astronomy, classics, English, French, history, Latin, mathematics, philosophy, physics, political science, psychology, Russian, sociology, Spanish, speech. Other combinations will require more than ten semesters.

The first year is the program common to freshmen in Engineering and may be taken in either college. The second and third years are taken in Liberal Arts and Sciences, and the last two years are taken in Engineering. All graduation requirements of both colleges must be met.

Students entering this curriculum must meet the admission requirements of both colleges. A student dropping out of the program will be subject to the existing graduation requirements of the college of his choice. A student in the curriculum is governed by the probation and drop rules of the college in which he is registered. A student



Your move!

who completes the foreign language requirement in Liberal Arts and Sciences in less than four semesters must replace the hours thus released by work in social sciences or humanities.

Students transferring from the Chicago Undergraduate Division must plan to complete at least one year in the College of Liberal Arts and Sciences at Urbana, and two years in the College of Engineering at Urbana.

Graduation will be from both colleges simultaneously on completion of the entire program.

Transfer students who have more than 75 hours are ineligible for this program. Applications from transfer students for the combined program must be made at least six weeks in advance of the opening of the term.

Forestry Curriculum

Students may take the first year of the four-year forestry curriculum, administered by the College of Agriculture at Urbana, at the Chicago Undergraduate Division. Courses for the freshman program in forestry should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Home Economics Curriculum

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Predental Curriculum

Students applying for admission to the predental curriculum must have ranked in the upper half of their high school graduating classes. They must maintain at all times in the curriculum a minimum average of 3.5. Since the function of the predental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours include history, economics, sociology, philosophy, and at least one modern language.

The specific requirements for admission to the College of Dentistry are as follows:

	SEMESTER HOURS
Chemistry (including three hours of quantitative analysis and four hours of organic chemistry—Chemistry 101 or 102, 105, 122, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology[1])	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives (including history, economics, sociology, philosophy and at least one modern language; excluding military, hygiene, and physical education)	30
Total	60

[1] The general zoology requirement may be met by Biol. 101 and 131 or Biol. 101 with a grade of "B."

Prejournalism Curriculum

Students planning to enter the College of Journalism and Communications register as prejournalism freshmen and sophomores, following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering the junior year.

For admission to the College of Journalism and Communications as a candidate for a degree, a student must have completed fifty-six semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military training, with an average grade of 3.5. An applicant for admission will find it to his advantage to include in his prejournalism curriculum courses in economics, English, history, foreign languages, political science, psychology, and sociology.

The College of Journalism and Communications offers the following curricula: editorial, advertising, publication, management, and radio-television.

Prelaw Curriculum

The prelegal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Service at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both Liberal Arts and Law comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements except the minor and advanced hours before entering the College of Law. The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; psychology; sociology; mathematics; and accountancy.

Premedical Curriculum

Any freshman whose scholastic rank is in the upper half of his high school graduating class, provided he has credit in elementary algebra and plane geometry, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the premedical curriculum. Premedical students must maintain a 3.5 average to remain in the curriculum. A student transferring to this college with advance

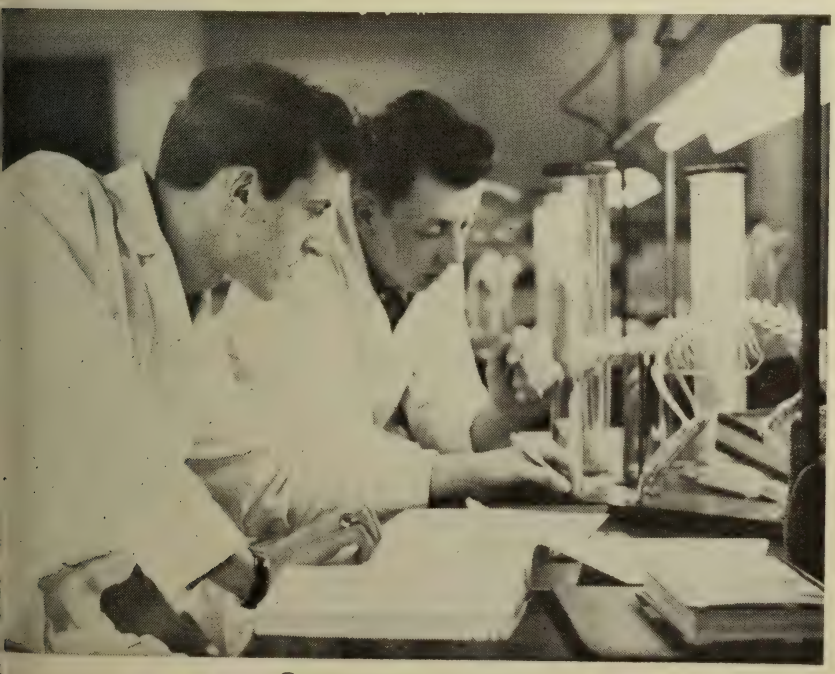
standing must meet this standard in terms of the University's grading system in order to be admitted to the premedical curriculum.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	SEMESTER HOURS
Non-Science Courses (32 semester hours required)	
English	6
Foreign Language	6
Social Science and Humanities (at least three hours from each area)	16
Electives	4
Laboratory Sciences (32 semester hours required)	
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and embryology)	10
Chemistry (including in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	14
Physics (including laboratory work in mechanics, heat, sound, light, and electricity)	8
Free Electives	24
Physical Education, 4 semesters	
Total	88

Prepharmacy Curriculum

Admission to the College of Pharmacy of the University of Illinois requires favorable action by the Admissions Committee of that college. Effective September 1, 1960, to be eligible for consideration by the Committee, a student must: (1) present six hours of rhetoric, one year of general chemistry, five hours of college algebra and trigonometry; (2) have a total of thirty hours of credit excluding hygiene, military science, and physical education; (3) have a grade point average of at least 3.0.



Comparative Anatomy.

The specific requirements can be met at the Chicago Undergraduate Division through Rhetoric 101, 102; Chemistry 102 (101), 105; Mathematics 112, 114. These courses total 19-21 hours. The additional work will be taken in foreign language, as required in Liberal Arts and Sciences, social sciences, and/or humanities. Students deficient in preparation for Mathematics 112 will start with Mathematics 103.

Students who transfer into this curriculum at the end of their first semester may find it necessary to complete the requirements in the Summer Session.

Curricula in Nursing

The University offers two degree programs leading to a Bachelor of Science in Nursing. One is for students direct from high school, the second is a continuation program for registered nurses who meet a specific set of requirements. Each program is made up of two phases—a preprofessional year in the College of Liberal Arts and Sciences, and the professional phase administered by the College of Nursing.

Admission to the preprofessional year in both programs is restricted to students from the upper half of the high school class who are eligible to enter the College of Liberal Arts and Sciences. Transfer students must have a 3.0 scholastic average.

Admission to the professional phase is on recommendation of the Admissions Committee of the College of Nursing after completion of the following preprofessional year:

Rhetoric 101, 102	6
Chemistry 102 (or 101), 132	6-8
Biology 101	4
Humanities	6-8
Social Sciences	6-8
Electives	
Physical Education	
Totals	30

Specific questions on both programs should be addressed to the Dean of the College of Nursing, 1853 W. Polk Street, Chicago 12, Illinois.

Occupational Therapy

The University offers a baccalaureate degree program in occupational therapy, open both to men and women, and requiring six semesters of work in the College of Liberal Arts and Sciences and five quarters in the College of Medicine. The first year may be taken at the Chicago Undergraduate Division.

Admission to the curriculum is restricted to students from the upper half of the high school graduating class, who are in good health as determined by a physical examination, and who are approved

by the Director of the curriculum. A 3.5 average is required for admission to the professional phase of the curriculum.

The work of the first year is as follows:

	SEMESTER HOURS
Rhetoric 101, 102	6
Biology 101, 141	8
Art 181, 182	4
Speech 101	3
Hygiene 104	2
Electives (foreign language, social science, humanities)	8-10
Physical Education	
Total	31-33

Curriculum in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining the B.S. degree. It specifies the courses essential to a strong foundation in physics and permits concentration in the first two years on basic courses which are prerequisite to advanced courses in physics and mathematics.

It is planned for a student entering with four years of high school mathematics, including trigonometry (see, however, footnote 1 following curriculum), a year of chemistry, and no French or German. A student who can satisfy the college language requirement on entering has the distinct advantage of adding 16 hours of electives to his course of study. A student who has a year of high school biology will also have more freedom in choice of electives (see footnote 4 following curriculum).

Physics Experiments.

To enter the physics curriculum, an entering freshman must rank in the upper half of his high school class. To be permitted to register in advanced physics or mathematics courses in this curriculum, students must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military science and physical education, and a combined grade average of at least 3.5 in all courses completed in physics and mathematics. Transfer students must have a corresponding record in the institution from which they transfer.

FIRST YEAR FIRST SEMESTER 16 HOURS	
Math. 123—Analytic Geometry[1]	5
Chem. 103—General Chemistry[2]	4
German or French[3]	4
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER 16 OR 17 HOURS	
Math. 133—Calculus[1]	3
Chem. 104—Chemistry of the Metallic Elements[2]	4
German or French[3]	4
Rhet. 102—Rhetoric and Composition	3
Elective	2 or 3
Physical Education	

SECOND YEAR FIRST SEMESTER 17 HOURS	
Math. 143—Calculus[1]	5
Physics 106—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

SECOND SEMESTER 15 HOURS	
Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

[1]The prerequisite to entering the stated sequence in mathematics is three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the mathematics placement examination. Students having college credit for algebra and trigonometry are not required to take the examination. A student who does not meet the above prerequisite may meet the requirements in basic mathematics with the sequence Math. 112, 114, 123, 133, 143, but he will receive only 13 hours credit toward the degree.

[2]The chemistry requirement may be satisfied by a year of general chemistry selected from courses Chem. 101 through 108, or by the one-semester course Chem. 109. A maximum of eight hours in general chemistry will be counted toward the degree, except that ten hours will be allowed for Chem. 107 and 108.

[3]The language requirement is a reading knowledge of German or French. A student planning to enter graduate study should attain a reading knowledge of both German and French.

[4]The elective subjects must include at least 24 hours of course work in humanities, social sciences, and biological sciences. The courses must satisfy the general education requirements of the college, except that students offering one unit or more of biology for admission may substitute additional courses in humanities and social sciences for biological sciences. Students will be advised to include six to eight hours of physics and three to six hours of mathematics among the remaining electives.

Teacher Education Curricula

Of the curricula in teacher education which have been approved by the College of Liberal Arts and Sciences, preliminary work in thirteen curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid, and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

While these curricula vary considerably from one another, the common core of the first two years is as follows:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech 101	3	
Foreign Language (until a 104 course is completed)	8	8
Science	6-8	
English or Social Studies as required		6-8
Specific requirements. Education 101, History 151 or 152, Political Science 150, Psychology 100		13
Work in major teaching field and electives	3-7	4-6
Total	30-32	32-34

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this college.

The work of the first two years in this curriculum has the following pattern:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech	2-3	
Language arts	6-8	
Science, biological and physical	8	8
Social Studies	8	
Specific requirements, Education 101, Geography 104, History 151 or 152, Political Science 150, Psychology 100		16
Electives		7-9
Total	32-34	32-34

Admission to the curricula preparatory to teaching deaf and hard-of-hearing children or mentally handicapped children requires the meeting of qualitative and physical requirements and a personal interview. The determination of courses will be made with a teacher education advisor.

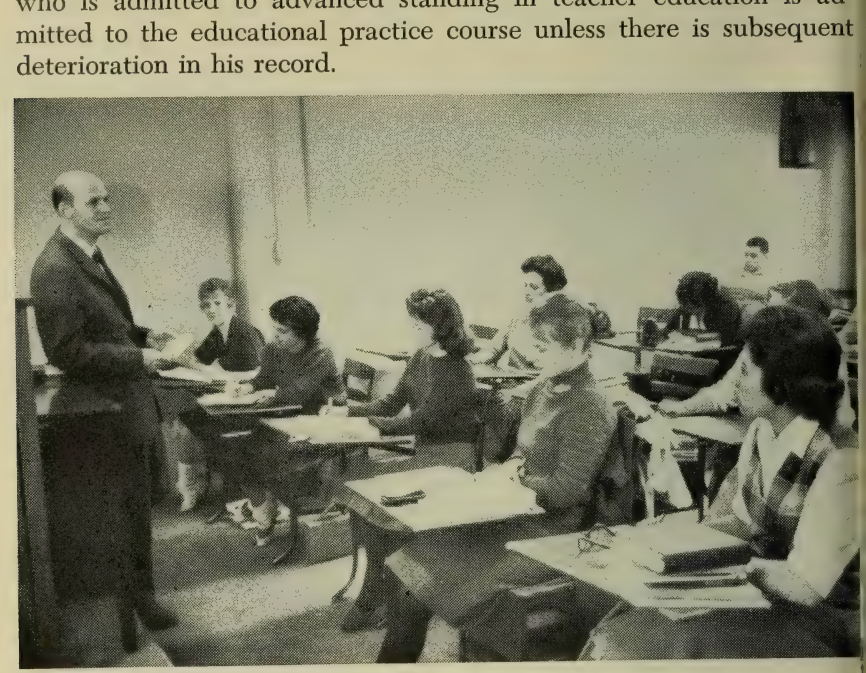
Admission to Advanced Standing in Teacher Education

Continuation in teacher education programs requires admission of the student to advanced standing in teacher education. Application for admission to advanced standing must be made early in the final semester of the sophomore year. A student who transfers to a teacher education curriculum with more than sophomore standing must apply for admission to advanced standing early in his first semester of attendance. Information about the procedure for applying for advanced standing is available from the Teacher Education Advisor, Room 36.

Admission to advanced standing is determined on the basis of the applicant's academic and personal qualifications for teaching. The completion of certain standardized tests is required. The record of an applicant whose academic average is below 3.5 is subject to special study.

Admission to advanced standing in teacher education is prerequisite to admission to education practice (student teaching). A student

who is admitted to advanced standing in teacher education is admitted to the educational practice course unless there is subsequent deterioration in his record.



Future teachers.

Preveterinary Curriculum

The two-year preveterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the preveterinary curriculum must rank in the upper half of their high school graduating classes. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	SEMESTER HOURS
Chemistry (including organic and quantitative analysis—Chemistry 101 or 102, 105, 122, and 133)	16
Biological Sciences (including botany and general zoology)	8
Physics (including laboratory—Physics 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	9
Free electives	7
Total	62

The preveterinary curriculum is extremely rigid, and failure to register in the prescribed courses in the proper sequence may result in an additional semester of study.

COLLEGE OF PHYSICAL EDUCATION

All students entering the university as freshmen are required to obtain four semesters credit in physical education. Each student is given a health examination and a placement test before registration. The findings of the Health Service and the testing division are used as a basis for prescribing each student's physical education program. Students with handicapping physical defects are assigned to prescribed activities. Students with low scores in the placement test are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for one and one-half hours. All nonprofessional courses in physical education carry one hour credit.

Men students entering the University with less than sixty semester hours credit are required to secure four semesters credit in physical education, including the amount transferred. In addition to a basic physical fitness program, men students in the physical education classes are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing,

Physical Education class—apparatus.

wrestling, weight lifting, archery, boating and fishing, basketball, back yard sports, personal defense activities, and intercollegiate and intramural athletics.

Veteran students who have fulfilled the physical education requirement while in the service are exempt from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce and Business Administration.

Women students entering the University as freshmen are required to obtain four semesters credit in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of physical education. Women are offered instruction in elementary and intermediate rhythms, ballroom dance, speedball, modified activities, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's physical education classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extracurricular activities in sports and the dance.

PROFESSIONAL CURRICULA

In addition to the service program, the College of Physical Education offers the first two years of a four-year program leading to the degree of Bachelor of Science in Physical Education, for both men and women. Men desiring to major in Recreation or Health Education, and women desiring to major in Dance, may take at least one year of work at this Division. Complete information concerning the professional curricula is available at the office of the Associate Dean of the College of Physical Education (for men) and from the Head of the Department of Physical Education for Women.

Curriculum in Physical Education for Men

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 150—Professional Orientation	2	P.M.M. 155—Gymnastics	
P.E.M. 151—Beginning Basketball	2	P.E.M. 156—Wrestling	
P.E.M. 152—Beginning Football	2	P.E.M. 157—Track & Field	
Speech 101—Prin. of Effect. Sp.	3	P.E.M. 158—Baseball	
Rec. 174—Camp Counseling	3	Biol. 101—Fundamentals of Biol.	
Hyg. 104—Science of Per. Health	2	Rhet. 102—Rhetoric & Comp.	
Rhet. 101—Rhetoric & Composition	3	Hyg. 110—Public Health	
	17	Humanities Elective	
			16

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 153 Fitness Programs	2	Rec. 170—Outdoor Rec. Spts.	
P.E.M. 154—Swimming	2	Rec. 171—Indoor Rec. Spts.	
Rec. 176—Principles of Rec.	3	Dance 235—Square & Ballrm.	
Pol. Sci. 150—American Government	3	P.E.M. 209—History of Spt.	
Psych. 100—Introduction to Psych.	4	History 152—American History	
Education 201—Found. of Am. Ed.	2	Rhet. 151—Bus. Letter Writ.	
	16	Electives	
			1

Curriculum in Physical Education for Women

A minimum of 132 hours of credit, counting physical education, is required for graduation.

FIRST YEAR

FIRST SEMESTER	HOURS
P.E.W. 150—Professional Orientation	2
P.E.W. 151—Body Mechanics and Gymnastics.	1
P.E.W. 111 or 112—Swimming	1
Rhet. 101—Freshman Rhet. and Comp.	3
Biol. 101—Fundamentals of Biology	4
Hygiene 104—The Science of Personal Health.	2
Gr. Elective I	3
Total	16

SECOND SEMESTER	HOURS
P.E.W. 152—Volleyball and Softball	1
Dance 160—Beginning Contemporary Dance	1
Rhet. 102—Freshman Rhet. and Comp.	3
Speech 101—Principles of Effective Speaking	3
Psych. 100—Introduction to Psychology	4
Gr. Elective I	3
Total	15

SECOND YEAR

FIRST SEMESTER	
P.E.W. 153—Hockey, Soccer and Basketball	1
Dance 235—Square and Ballroom Dance	2
H.E. 281—First Aid	2
Physiol. 104—Physiological Anatomy	5
Pol. Sci. 150—American Government	3
Gr. Elective I	2
Total	15

SECOND SEMESTER	
P.E W. 154—Tumbling and Tennis	1
P.E.W. 166—Elementary School Games	2
P.E.W. 167—Teaching of Gymnastics and Dance	2
Physiol. 105—Physiological Anatomy	5
Hist. 152—History of U. S. from 1865 to Present	4
Free Elective or Minor I	3
	17

Women's Physical Education.

U. S. ARMY RESERVE OFFICERS' TRAINING CORPS

Authorization

The Reserve Officers' Training Corps (R.O.T.C.) is organized under authority of section 40 through 47c of the National Defense Act of 1916, as amended, and was activated at the University of Illinois, Chicago Undergraduate Division, in September 1950.

Educational Aim

The fundamental educational aim of the R.O.T.C. is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and to so prepare him that, in time of national emergency, he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspects of the military training program give the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should instill in the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The R.O.T.C. course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the R.O.T.C. are that the student be regularly enrolled in the University, be a citizen of the United States, be within specified age limits, be physically qualified, and be approved by the Professor of Military Science and Tactics.

Note: Students who voluntarily enroll in R.O.T.C. thereby become obligated to fulfill the University degree requirement in Military Science; namely, successful completion of the basic course.

Program of Instruction

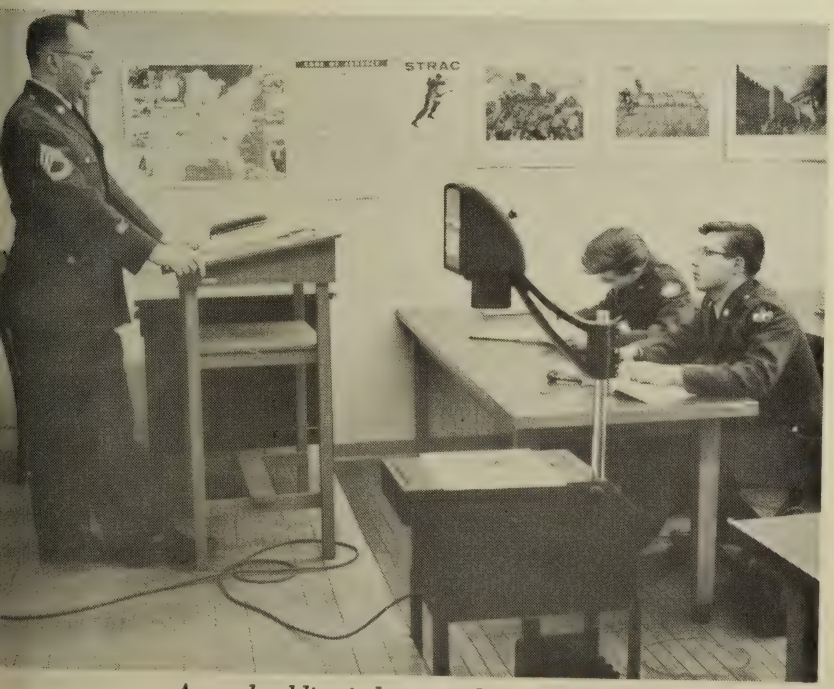
College level R.O.T.C. instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, which comprises the last two years of the program. Only the first two years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the basic course. Students in the basic course devote three hours a week to military instruction which consists of two hours of classroom instruction and one hour of drill. Credit for the basic course is one credit hour each semester. A student entering the University of Illinois after successfully completing military training at a high school or preparatory school which has an accredited Junior Division R.O.T.C. program will be entitled, upon enrollment, to such placement as may be determined by the Professor of Military Science and Tactics. In no case will this placement exceed the first year of the basic course. Any member of the U. S. Army Reserve who has completed a six-month tour of active duty for training is eligible to enroll in the basic course of R.O.T.C. Constructive credit not to exceed the first year of the basic course may be given to individuals in this category. These individuals also may substitute completion of a satisfactory year of R.O.T.C. training for a required satisfactory year of training in the Ready Reserve.

Advanced Course

The advanced course of the R.O.T.C. leads to a Reserve or Regular commission in the U. S. Army. Any student enrolling in the advanced



A good soldier is born in the classroom.

course must be prepared to pursue the course to completion, and must be able to qualify for appointment as a second lieutenant prior to reaching twenty-eight years of age. The objective of the advanced course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular Army units.

All members of the advanced course will receive the following: monetary allowance in lieu of subsistence, officer-type uniform, the pay of the first enlisted grade while at the advanced summer encampment, and all necessary texts and materials on a loan basis.

Deferment from Selective Service

Deferment from Selective Service is granted for completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and civilian faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the R.O.T.C. receive an Army officer-type uniform and textbooks at government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of $10 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

COURSES OF INSTRUCTION

The following list of undergraduate courses is arranged in alphabetical order. The courses offered by each department are listed numerically in groups with headings to indicate the students for whom they are designed. Courses for undergraduates (freshmen and sophomores) are numbered 100 to 199; those for advanced undergraduates (junior and seniors), are numbered 200 to 399.

Students having ninety-five or more hours of credit, without regard to the college in which they may be enrolled, are classified as seniors for the purpose of designating those freshman courses which, when taken by seniors, carry reduced credit.

Following the title of each course is a description of its content, the session during which it is offered, the credit given, and the requirements for admission to the course, if any. Courses are offered each semester unless otherwise indicated: "I" for the first semester only, and "II" for the second semester only.

ACCOUNTANCY

Accy. 101. Principles of Accounting. Credit 3 hours. Beginners' course. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students with 95 or more credit hours receive only 2 hours credit.

Accy. 105. Accounting Procedure. Credit 3 hours. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting, business forms and records; payroll accounting; single entry; financial statement analysis. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

Accy. 106. Elementary Cost Accounting. Credit 3 hours. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. Prerequisite: One year of accountancy; sophomore standing.

Accy. 108. Intermediate Accounting. Credit 3 hours. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. Prerequisite: One year of accountancy; sophomore standing.

ANTHROPOLOGY

Anthrop. 102. Introduction to Anthropology: The Origin of Man and Culture. Credit 4 hours. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. This course with Anthropology 103 satisfies the social science requirement in Liberal Arts and Sciences. I.

Anthrop. 103. Introduction to Anthropology; The Growth of Culture. Credit 4 hours. An introduction to and survey of the development of cultures with special attention to invention, diffusion, adaptation, integration, and other processes of cultural growth as illustrated by primitive and native populations of the world. Recommended though not required to be taken with Anthropology 102 as a survey of the field of anthropology. This course with Anthropology 102 satisfies the social science requirement in Liberal Arts and Sciences. II.

ARCHITECTURE

Arch. 101. Introduction to Architecture. Credit 3 hours. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Prerequisite: Credit or registration in General Engineering 107.

Arch. 113. History of Ancient Architecture. Credit 2 hours. A description and analysis of the development of the architecture of the ancient East, Greece and Rome, related to the environmental and cultural setting. Prerequisite: Architecture 131 or sophomore standing.

Arch. 131. Architectural Design. Credit 3 hours. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. Prerequisite: Sophomore standing, Arch. 101, credit in G.E. 108, and registration in Arch. 141.

Arch. 132. Architectural Design. Credit 3 hours. Continued study of the fundamentals of architectural design. Prerequisite: Architecture 131.

Arch. 141. Materials and Methods of Construction I. Credit 2 hours. Wood frame construction as used in houses; manufacture and performance characteristics of materials; farming systems; typical details; finishing materials. Prerequisite: Registration in Architecture 131, and credit in G.E. 108.

Arch. 142. Materials and Methods of Construction II. Credit 2 hours. Non-fire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures and drawings. Prerequisite: Architecture 141.

Arch. 214. History of Medieval Architecture. Credit 3 hours. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. Prerequisite: Architecture 113 or consent of instructor.

Arch. 233. Architectural Design. Credit 3 hours. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. Prerequisite: Architecture 132, credit or registration in T.A.M. 150 or 171, and registration in Arch. 241.

Arch. 241. Materials and Methods of Construction III. Credit 2 hours. Semi-fireproof construction, manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Prerequisite: Architecture 142 and registration in Arch. 233.

ART

Art 111. Survey of Art History. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. I.

Art 112. Introduction to Renaissance and Modern Art. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. II.

Art 115. Art Appreciation. Credit 3 hours. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students.

Art 117. Drawing I. Credit 3 hours. Theory and practice in the elements of drawing.

Art 118. Drawing II. Credit 2 hours. Continuation of Art 117. Prerequisite: Art 117.

Art 119. Design. Credit 2 hours. Theory and practice in the elements of design.

Art 120. Design. Credit 3 hours. Continuation of Art 119. Prerequisite: Art 119.

Art 181. Freehand Drawing. Credit 2 hours. Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture.

Art 182. Freehand Drawing. Credit 2 hours. Continuation of Art 181. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Prerequisite: Art 181.

Art 183. Freehand Drawing. Credit 2 hours. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 182.

Art 184. Freehand Drawing. Credit 2 hours. Continuation of Art 183. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 183.

Art 281. Freehand Drawing. Credit 2 hours. Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. Prerequisite: Art 184.

BIOLOGICAL SCIENCES

Biology 101. Fundamentals of Biology. Credit 4 hours. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for both Biol. 101 and D.G.S. 131.

Biology 102. Fundamentals of Biology, Continued. Credit 4 hours. Application of biological principles to the living world. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biol. 101. Credit will not be given for both Biol. 102 and D.G.S. 132.

Biology 111. General Botany. Credit 4 hours. The basic principles of plant structure, growth, physiology, reproduction, evolution and distribution, with special emphasis upon the role of the plant kingdom in the cycles of nature and human life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement or consent of the instructor. Credit will not be given for Biol. 111 in addition to Biol. 101 or D.G.S. 131.

Biology 115. Introductory Systematic Botany (Plant Taxonomy). Credit 4 hours. Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures and laboratory. Prerequisite: Biology 102 or 111.

Biology 116. Economic Botany. Credit 3 hours. Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Applications to forest, drug, food, textile, beverage and other industries. Lectures and discussion. Prerequisite: Biology 102 or 111. II.

Biology 120. The Plant Kingdom. Credit 4 hours. An introductory study of the life histories of plants representative of algae, fungi, ferns, and seed plants. Prerequisite: Biology 111 or 102, or Biology 101, with a grade of "B" or higher.

Biology 121. Microbiology. Credit 4 hours. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals,

as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures and laboratory. Prerequisite: Biology 102 or consent of instructor.

Biology 126. Advanced General Bacteriology. Credit 4 hours. General technic, special apparatus and methods. Lectures and laboratory. Prerequisite: Biology 121, credit or registration in Chemistry 105. II.

Biology 131. General Zoology. Credit 4 hours. A survey of the animal kingdom. The structures, functions, life history, adaptations, classification and evolutionary relationships of animals. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 111.

Biology 132. Comparative Vertebrate Anatomy. Credit 5 hours. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. Prerequisite: Biology 102 or 131, or Biology 101 with a grade of "B" or higher.

Biology 136. Bird Study. Credit 2 hours. Native birds; their identification food relations, seasonal distribution, migration activities, economic importance, and conservation. II.

Biology 141. Vertebrate Physiology. Credit 4 hours. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 102; or Biology 101 with a grade of "B" or higher.

Biology 142. Physiology of the Nervous System. Credit 4 hours. This course is designed to furnish an understanding of the physiological activities by which the nervous system carries out its function. Recommended as background for students of psychology, education, or biological sciences. Lectures and laboratory. Prerequisite: Biology 141.

Biology 333. Vertebrate Embryology. Credit 5 hours. The development of the vertebrate body and its organs. Lectures and laboratory. Prerequisite: Biology 132, junior standing.

BUSINESS LAW

Business Law 100. Basic Principles of Business Law. Credit 3 hours. Basic principles of business law, covering the subjects of contracts, sales negotiable instruments and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. Prerequisite: Accountancy 105; Economics 102; 45 credit hours.

CHEMISTRY

(All courses, except 247, 342, 343, consist of lectures, laboratory and quiz.

Chem. 101. General Chemistry. Credit 5 hours. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 102. General Chemistry. Credit 3 hours. For students who have had one year of high school chemistry, and whose preparation is adequate as indicated by placement examination. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: One unit of entrance credit in chemistry or equivalent.

Chem. 103. General Chemistry. Credit 4 hours. For engineering students who have had no chemistry or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 104. Chemistry of the Metallic Elements. Credit 4 hours. Limited to students in engineering curricula. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105, 106, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 105. Inorganic Chemistry and Qualitative Analysis. Credit 5 hours. For students who are not eligible for Chemistry 104 or 106. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 106. Inorganic Chemistry. Credit 5 hours. Metallic elements. For students in curricula in chemistry, chemical engineering, and chemistry majors who are not premedical students. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104, 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 107. General Chemistry. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination. I.

Chem. 108. General Chemistry and Qualitative Analysis. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Credit is not granted to students who have received credit in Chemistry 104, 105, 106 or 109. Prerequisite: Chemistry 107. II.

Chem. 109. General and Inorganic Chemistry. Credit 5 hours. A course in general chemistry and the chemistry of the elements and inorganic compounds, completing in one semester the work usually taken in two. Limited to students in the engineering and physics curricula. Not open to students who have college credit in chemistry. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Open only to students in the top quarter of their graduating class who qualify on the Chemistry Placement Test and are placed in Mathematics 112 or above.

Chem. 110. Qualitative Analysis. Credit 5 hours. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students who major in chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. Prerequisite: Chemistry 106 or equivalent.

Chem. 122. Elementary Quantitative Analysis. Credit 5 hours. Gravimetric and volumetric analysis, stoichiometrical relations, practical application. Prerequisite: Chemistry 105 or equivalent.

Chem. 123. Quantitative Analysis for Engineers. Credit 5 hours. A course in quantitative analysis designed for the needs of engineers, especially ceramic and metallurgical. Prerequisite: Chemistry 104, 105 or 109. II.

Chem. 124. Quantitative Analysis. Credit 5 hours. For all students in the chemistry curriculum and chemical engineering. Prerequisite: Chemistry 108, 110 or equivalent.

Chem. 132. Elementary Organic Chemistry. Credit 3 hours. This course does not satisfy the organic chemistry prerequisite for Chemistry 350, 354 or 355. Beginning course in organic chemistry especially for students in the prenursing curriculum. Prerequisite: Chemistry 101, 102, 109 or equivalent. II.

Chem. 133. Elementary Organic Chemistry. Credit 5 hours. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Prerequisite: Chemistry 105 or equivalent.

Chem. 234. Organic Chemistry. Credit 5 hours. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. Prerequisite: Chemistry 124. II.

Chem. 247. Elementary Physical Chemistry. Credit 4 hours. For premedical students and others not in chemistry and engineering curricula. Lectures and laboratory. Prerequisite: Chemistry 122 and 133; Physics 10 or equivalent. II.

Chem. 342. Physical Chemistry. Credit 3 hours. Introduction to the study of chemical principles. Prerequisite: Chemistry 124; Physics 106, 10 and 108, or two semesters of general physics with concurrent registration in the third semester; credit or registration in Mathematics 143 or equivalents. I.

Chem. 343. Physical Chemistry Laboratory. Credit 1 hour. Quantitativ experimental study of chemical principles. Prerequisite: Credit o registration in Chemistry 342. I.

CIVIL ENGINEERING

C. E. 101. Elementary Surveying. Credit 3 hours. Fundamental surveyin operations. Prerequisite: General Engineering 101 and credit or reg istration in Mathematics 123.

C. E. 195. Introduction to Civil Engineering. No credit hours. A series o informal lectures and discussions on the field of civil engineering including the position and function of the civil engineer, history o civil engineering and a qualitative approach to civil engineering prob lems. Prerequisite: Sophomore standing in civil engineering.

C. E. 207. Surveying Camp. Credit 5 hours. Topographic surveying an mapping; highway location surveys; land surveying; hydrographi surveying; stream gaging; field astronomy; precise traverse and leve ing. Given in summer surveying camp at Camp Rabideau in norther Minnesota. Prerequisite: Civil Engineering 101.

C. E. 210. Properties of Soils. Credit 3 hours. Identification and classificatio of earth materials; hydraulic and mechanical properties of soils; cha acter of natural soil deposits; and appraisal of methods of subsurfa exploration. Laboratory determination of the index properties of soil Prerequisite: Credit or registration in Theoretical and Applied M chanics 221, Geology 150, and junior standing in engineering architecture.

C. E. 214. Composition and Properties of Concrete. Credit 2 hours. Prope ties and uses of cements, aggregates, mixing water, and admixture composition and properties of concrete mixtures; field practices in t production of concrete. Laboratory practice in the design and contr of quality concrete. Prerequisite: Theoretical and Applied Mechani 223 or 224, and junior standing in engineering or architecture, or co sent of instructor.

C. E. 215. Engineering and Construction Economy. Credit 3 hours. An intr duction to engineering and construction economy; fundamentals engineering and construction costs; engineering and construction eco omy studies; and mathematics of finance. Prerequisite: Junior standin

C. E. 261. Theory of Determinate Structures. Credit 3 hours. A study of t fundamental theory of statically determinate structures with applic tions to the evaluation of reactions, shears, and moments in bean and stresses in trusses for fixed and moving loads; introduction to d flection computations. Prerequisite: Credit or registration in Theoretic and Applied Mechanics 221.

ECONOMICS

Econ. 100. Introduction to Business. Credit 3 hours. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only.

Econ. 102. Principles of Economics I. Credit 3 hours. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. Prerequisite: One year of college work.

Econ. 103. Principles of Economics II. Credit 3 hours. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. Prerequisite: Economics 102.

Econ. 108. Elements of Economics. Credit 3 hours. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. Prerequisite: One year of college work. Not open to those who have had Economics 102 or 103.

Econ. 136. American Economic History. Credit 3 hours. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. Open to freshmen and sophomores only.

Econ. 138. European Economic History. Credit 3 hours. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. Open to freshmen and sophomores only.

Econ. 170. Elements of Statistics. Credit 3 hours. Method of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credit for Psychology 135, Mathematics 161, or Economics 171. Prerequisite: Economics 102 or 108; Sophomore standing.

EDUCATION

Ed. 101. Nature of the Teaching Profession. Credit 2 hours. An orientation course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher.

Ed. 109. Educational Psychology. Credit 3 hours. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. Prerequisite: Psychology 100. II.

Ed. 201. Foundations of American Education. Credit 2 hours. A study of contemporary American public education in the setting of current American culture; confusions and issues with respect to the school program, its purposes, its content, its methods, and its organization are related to confusions and issues with respect to social, economic, and political purposes and organizations, both domestic and interna-

tional. An attempt is made through the study of these relationship to clarify the contemporary social functions of the American schoo and teaching profession. Prerequisite: Psychology 100; Education 101

ELECTRICAL ENGINEERING

E. E. 126. Electric Circuits and Fields. Credit 4 hours. Study of units an relations in electric and magnetic circuits and fields. Basic concepts o circuit parameters. Prerequisite: Physics 107; Mathematics 143; credi or registration in Mathematics 345.

ENGLISH

English 101. Introduction to Poetry. Credit 3 hours. Understanding o poetry through the reading and discussion of representative poems Students with 95 or more credit hours receive only 2 hours credit. Thi course, plus English 102 and 103, satisfies the humanities requiremer in general education.

English 102. Introduction to Drama. Credit 3 hours. Understanding o drama through the reading and discussion of representative plays. Th reading list includes selections from Greek, Elizabethan, modern Eng lish, continental, and American drama. Students with 95 or more credi hours receive only 2 hours credit.

English 103. Introduction to Fiction. Credit 3 hours. Understanding of fi tion through the reading and discussion of representative short storie and novels. The reading list includes Jane Austen's *Pride and Prejudic* Balzac's *Pere Goriot,* Arnold Bennett's *Old Wives' Tale,* Dostoevski *Crime and Punishment,* E. M. Forster's *A Passage to India* an the anthology *Reading Modern Short Stories.* Students with 95 or mor credit hours receive only 2 hours credit.

English 113. American Literature. Credit 3 hours. Classic American autho before the Civil War; an introduction to Franklin, Poe, Emerson, Haw thorne, Melville, Whitman, and others. Prerequisite: Sophomore stan ing or exemption from Rhetoric 102.

English 114. American Literature. Credit 3 hours. Classic American autho after the Civil War to the present; an introduction to Mark Twai James, Dreiser, Hemingway, O'Neill, Frost, and others. Prerequisit Sophomore standing or exemption from Rhetoric 102.

English 121. Chief English Writers Before 1800. Credit 3 hours. *Canterbu Tales, Utopia,* two plays by Shakespeare, *Paradise Lost, Gulliver Travels, Tom Jones, Rasselas.* This course, with English 122, is th normal prerequisite to an English major. This course, plus Engli 122 and 123, satisfies the humanities requirement in general educatio Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 122. Chief English Writers of the Nineteenth Century. Credit hours. Wordsworth, Byron, Carlyle's *Past and Present,* Arnold's pros and poetry, FitzGerald's *The Rubaiyat of Omar Khayyam,* reading from T. H. Huxley, Browning's poems, and one novel. Prerequisit Sophomore standing or exemption from Rhetoric 102.

English 123. Chief Modern English Writers. Credit 3 hours. Conrad, Elio Joyce, Lawrence, Shaw, Yeats, and others. Prerequisite: Sophomo standing or exemption from Rhetoric 102.

English 131. Introduction to Shakespeare. Credit 3 hours. Prerequisit Sophomore standing or exemption from Rhetoric 102.

FRENCH

French 101. Elementary Course. Credit 4 hours. Grammar, pronunciatio reading of modern authors, composition, and conversation. For st

dents who have no credit in French. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101, without French 102.

French 102. Elementary Course. Credit 4 hours. Continuation of French 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: French 101 or one year of high school French.

French 103. Modern French. Credit 4 hours. Rapid reading of modern authors, syntax, and composition; some conversational practice. Prerequisite: French 102 or two years of high school French.

French 104. Modern French. Credit 4 hours. Continuation of French 103. Prerequisite: French 103 or three years of high school French.

French 113. Conversational Practice. Credit 1 hour. Oral practice for the development of elementary conversational skill and the improvement of pronunciation. Designed as a supplement to French 103 and 104, and open only to students concurrently enrolled in either French 103 or 104. Prerequisite: French 102 or two years of high school French. II.

French 201. Introduction to French Literature. Credit 3 hours. Prerequisite: French 104 or four years of high school French. I.

French 202. Introduction to French Literature. Credit 3 hours. Continuation of French 201. Prerequisite: French 104 or four years of high school French. II.

GENERAL ENGINEERING

G. E. 101. Engineering Graphical Communication. Credit 3 hours. Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. Prerequisite: Plane geometry.

G. E. 102. Engineering Geometry. Credit 3 hours. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawings. Prerequisite: General Engineering. 101.

G. E. 107. Architectural Projections. Credit 2 hours. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. Prerequisite: Plane geometry.

G. E. 108. Architectural Projections. Credit 2 hours. Shades and shadows; oblique, isometric, and perspective drawings; developments. Prerequisite: General Engineering 107.

G. E. 210. Industrial Production Illustration. Credit 3 hours. Mechanical and freehand drawings in axonometric, oblique, and perspective; shades and shadows; rendering of drawings with various media including some with the airbrush; industrial production illustration. An approved elective in all engineering curricula. Prerequisite: General Engineering 102, or 107 and 108.

G. E. 212. Graphical Calculation. Credit 1 hour. Use of various types of slide rules with special attention to the log-log scales; rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper, construction and use of nomographs or aligning charts. For students in engineering; accepted as an approved elective in all engineering curricula. Prerequisite: General Engineering 101 or equivalent; Mathematics 123.

GEOGRAPHY

Geog. 104. World Regional Geography. Credit 3 hours. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 105. Introductory Economic Geography. Credit 3 hours. Man's utiliza tion of the major economic resources of the world from the standpoin of geographic patterns. Students with 95 or more credit hours receiv only 2 hours credit.

Geog. 107. Weather and Climate. Credit 4 hours. Planetary relations the atmosphere, its composition, functions and behavior in the produc tion of various weather types; air masses and air mass analysis climatic types and climatic regions; application to present day activi ties. This course and Geography 108 meet the general education re quirements in physical sciences in Liberal Arts and Sciences.

Geog. 108. Landforms and Earth Resources. Credit 4 hours. The study o landforms from the geographic point of view; maps and their use earth resources (native vegetation, soils, water resources, mineral re sources); their development and utilization. This course and Geograph 107 meet the general education requirements in physical sciences i Liberal Arts and Sciences.

Geog. 114. Conservation of Natural Resources. Credit 3 hours. Elements c the conservation of natural resources (soils, water, biotic, minera recreational) with special emphasis given to the general principles c conservation as they apply to the United States. Prerequisite: Sopho more standing. II.

Geog. 123. Geography of Illinois. Credit 3 hours. Detailed regional study c the state with special emphasis on the cultural relations of Illinois t the rest of the nation. Prerequisite: Geography 101 or 104, or conser of instructor. II.

Geog. 386. Political Geography. Credit 3 hours. World patterns of nation in relation to their natural environmental backgrounds: Europea nations; Africa, the exploited continent; national structures in Asia western hemisphere nations. Prerequisite: one year of college geogra phy, history, or political science.

GEOLOGY

Geol. 101. Physical Geology. Credit 4 hours. Materials, structures, surfac features of the earth and processes which have produced them. Lec tures, quiz, and laboratory. One-half day field trip required. Geolog 101 and 102 meet the general education requirement in the physica sciences in Liberal Arts and Sciences. Students with 95 or more credi hours receive only 3 hours credit.

Geol. 102. Historical Geology. Credit 4 hours. Evolution of the earth an its life. Lectures and laboratory. Students with 95 or more credit hour receive only 3 hours credit. Prerequisite: Geology 101 or equivalen This course, with Geology 102, meets the physical sciences require ment in Liberal Arts and Sciences.

Geol. 110. Field Work. Credit 2 hours. Field observation in St. Francoi Mountains and adjacent parts of Missouri and Illinois. (During sprin vacation.) Two three-hour class meetings to be arranged. Credit i given only on completion of a satisfactory written report. Prerequisite Geology 101, 150, or Physical Science 102.

Geol. 131. Mineralogy. Credit 4 hours. A systematic study of minerals. Th nature of minerals as crystalline materials, and their geologic relation are emphasized. Crystal models, crystals, and the common nonsilicat minerals are studied in the laboratory. Lecture and laboratory. Pre requisite: One semester of college chemistry. I.

Geol. 132. Mineralogy. Credit 4 hours. A systematic study of minerals an rocks. The geologic relationships of minerals and rocks are emphasized The common silicate minerals and the important varieties of rocks ar studied in the laboratory. Lecture and laboratory. Prerequisite: Geolog 131. II.

Geol. 150. Geology for Engineers. Credit 3 hours. Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

German 101. Elementary Course. Credit 4 hours. Oral practice, reading, and grammar for beginners. Not open to students who have high school credit in this language. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102.

German 102. Elementary Course. Credit 4 hours. Continuation of German 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German.

German 103. Intermediate Course. Credit 4 hours. Modern narrative prose. Oral practice and sight reading. Prerequisite: German 102, two years of high school German, or equivalent.

German 104. Intermediate Course. Credit 4 hours. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. Prerequisite: German 103, three years of high school German, or equivalent.

German 113. Practice in Conversation. Credit 2 hours. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104. I.

German 210. Masterpieces of German literature. Credit 3 hours. Introduction to German literature, in subjects, forms, and ideals. Prerequisite: Two years of college German, or equivalent. I.

German 211. Conversation and Writing. Credit 3 hours. Prerequisite: German 104, or German 103 and 113 or equivalent. II.

German 252. Modern German Drama. Credit 3 hours. A study of the drama of the nineteenth and twentieth centuries, its relation to the Greek drama and world drama. Prerequisite: German 210 or equivalent. II.

HISTORY

Hist. 111. History of Western Civilization to 1815. Credit 4 hours. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the social science requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit. I.

Hist. 112. History of Western Civilization from 1815 to the Present. Credit 4 hours. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit. II.

Hist. 131. History of England to 1714. Credit 4 hours. A survey of the political and constitutional, social and economic, church and cultural, and imperial history of the British people from the beginning of English history through 1714. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit. I.

Hist. 132. History of England from 1714 to the Present. Credit 4 hours. A survey of the political and constitutional, social and economic, diplomatic and imperial, and cultural history of the British people from 1714 to the present. Students with 95 or more credit hours receive only 3 hours credit. II.

Hist. 151. History of the United States to 1865. Credit 4 hours. Colonial foundations, movement for independence, early years of the Republic. This course with History 152 meets the social science requirement in Liberal Arts and Sciences. I.

Hist. 152. History of the United States from 1865 to the Present. Credit 4 hours. A century of national life and organization. This course with History 151 meets the social science requirement in Liberal Arts and Sciences. II.

Hist. 181. The Ancient World. Credit 3 hours. Ancient empires and Greece. Prerequisite: Sophomore standing. I.

Hist. 182. The Ancient World. Credit 3 hours. Rome. Prerequisite: Sophomore standing. II.

Hist. 369. Constitutional Development of the United States to 1865. Credit 3 hours. Prerequisite: one year of college history or political science. I.

Hist. 370. Constitutional Development of the United States since 1865. Credit 3 hours. Prerequisite: One year of college history or political science. II.

HUMANITIES

Humanities 101. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities. I

Humanities 102. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature and classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 102 in addition to English 101, 102, or 103. Prerequisite: Humanities 101. II.

Humanities 151. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World on the topics of man's fate and his personal adjustment to life. This course, plus Humanities 152, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing or exemption from Rhetoric 102. I.

Humanities 152. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World in relation to the state and society. This course, plus Humanities 151, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing or exemption from Rhetoric 102. II.

HYGIENE

Hygiene 104. Personal and Community Hygiene. Credit 2 hours. This course covers basic principles of hygiene. Especially recommended for those going into teaching, occupational therapy, social work, etc. Students with 95 or more credit hours receive only 1 hour credit.

Hygiene 110. Public Health. Credit 2 hours. Material presented deals with information about community public health problems and the program designed to prevent disease and promote health education. This is especially valuable for all people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

MANAGEMENT

Management 101. Industrial Organization and Management. Credit 3 hours. Organization plans, administrative policies, and management problems with special attention to manufacturing units. Prequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

MARKETING

Marketing 101. Principles of Marketing. Credit 3 hours. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

MATHEMATICS

Math. 101. Basic Mathematics. Credit 3 hours. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. For Liberal Arts and Science students only. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include one year of algebra and one year of plane geometry. II.

Math. 102. Basic Mathematics. Credit 3 hours. Continuation of Mathematics 101. Prerequisite: Mathematics 101. I.

Math. 103. Introduction to College Algebra. Credit 3 hours. Fundamental operations, simple equations, factoring, fractions, exponents, radicals, linear equations in more than one variable, graphing, quadratic equations in one unknown. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

Math. 108. Elementary Plane Geometry for Veterans. No credit. This course deals with the usual topics of high school geometry. It is designed as a refresher course for those who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce and Engineering through this course.

Math. 109. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. Prerequisite: Consent of the department. I.

Math. 110. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. Prerequisite: Mathematics 109. II.

Math. 111. Algebra. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Required for students in Architecture deficient in algebra. Other students admitted only by consent of their college office and the Mathematics Department. Prerequisite: Entrance algebra, 1 unit and plane geometry, 1 unit.

Math. 112. College Algebra. Credit 3 hours. Theory of quadratic equations, progressions, binomial theorem, permutations, combinations, determinants, introduction to the theory of equations, logarithms. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 114. Plane Trigonometry. Credit 2 hours. Identities, equations, addition formulas and derived relations, solution of right and oblique triangles, radian measure, inverse functions. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 123. Analytic Geometry. Credit 5 hours. Geometrical properties of curves and surfaces, coordinate systems, translation and rotation of axes, higher plane curves, parametric equations. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 111 or 112, and 114.

Math. 133. Calculus. Credit 3 hours. First course for students of mathematics and engineering. Theory of limits, differentiation and integration of standard algebraic and trigonometric forms, integration as a process of summation, applications. Prerequisite: Mathematics 123.

Math. 143. Calculus. Credit 5 hours. Second course for students of mathematics and engineering. Integration of rational fractions, integration by parts, series and expansion of functions, hyperbolic functions, partial differentiation, multiple integrals, applications. Prerequisite: Mathematics 133.

Math. 161. Statistics. Credit 3 hours. An elementary course in the basic concepts of probability and statistics, arrangement and analysis of raw data, hypothesis testing, confidence limits and method of least squares. Prerequisite: Mathematics 112; sophomore standing. II.

Math. 263. Statistics in Engineering and Physical Sciences. Credit 3 hours. A first course in the use of statistical methods for interpreting the results of experiments. Applications to engineering and the physical sciences are emphasized. Prerequisite: One year of calculus. II.

Math. 315. Linear Transformations and Matrices. Credit 3 hours. A survey course in elementary matrix algebra, covering vector space, linear transformations, representation of transformations by matrices. Prerequisite: One year of calculus.

Math 341. Differential Equations. Credit 3 hours. An introductory course to ordinary differential equations and their applications to physical problems. First and second order equations, linear equations, solutions in series form, operator methods in linear equations. This course is intended for students who wish to go on to a study of partial differential equations in Mathematics 342. Prerequisite: One year of calculus.

Math. 342. Differential Equations. Credit 3 hours. An introductory course to partial differential equations, boundary value problems and Fourier series. Also considered are orthogonal functions, Fourier integrals, Bessel functions, applications to physical problems. Prerequisite: Mathematics 341.

Math. 343. Advanced Calculus. Credit 3 hours. The course includes the vector calculus, differential and integral calculus of functions of several variables, infinite series, power series, and line and surface integrals. Prerequisite: One year of calculus.

Math. 345. Differential Equations and Orthogonal Functions. Credit 3 hours. Theory of solving the standard elementary differential equations and application of these. Power series, solutions of second order equations and operational methods are included. A brief introduction is given to partial differential equations and Fourier series methods. Prerequisite: One year of calculus.

Math. 346. Complex Variables and Applications. Credit 3 hours. Theory and application of complex variables. Complex numbers, analytic functions, integrals, power series, residues and poles, conformal mapping. Prerequisite: Mathematics 343.

MECHANICAL ENGINEERING

M. E. 182. Manufacturing Processes. Credit 3 hours. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. Prerequisite: General Engineering 101, sophomore standing.

M. E. 183. Materials Casting. Credit 3 hours. Casting as a process of fabrication; the molding process including machine molding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. Prerequisite: General Engineering 101; sophomore standing.

M. E. 184. Metal Processing. Credit 3 hours. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. Prerequisite: General Engineering 101; credit or registration in Integral Calculus and Physics 108.

M. E. 209. Thermodynamics and Heat Transfer. Credit 3 hours. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles and processes involving transfers of mass and energy. Basic laws of heat transfer. Prerequisite: Physics 107, Mathematics 142 or 143.

M. E. 221. Mechanics of Machinery. Credit 5 hours. Linkages, cams, and gears; belts, ropes, and chains; velocities, accelerations, and inertia forces in machines; vibrations and critical speeds; balancing of engines; principle of the gyroscope. Prerequisite: T.A.M. 156 or registration in Theoretical and Applied Mechanics 211.

MILITARY SCIENCE AND TACTICS

Mil. Sci. 101. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Organization of the Army and ROTC; individual weapons and marksmanship, and leadership, drill and command, Prerequisite: Military Science department approval. I.

Mil. Sci. 102. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: American military history, and leadership, drill, and command. Prerequisite: Military Science 101 or equivalent. II.

Mil. Sci. 103. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Map and aerial photographs; basic tactics; and leadership, drill, and command. Prerequisite: Military Science 102 or equivalent. I.

Mil. Sci. 104. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Crew-served weapons and gunnery; elementary communications and leadership, drill, and command. Prerequisite: Military Science 103 or equivalent. II.

MUSIC

Music 100. Rudiments of Theory. Credit 2 hours. Notation, scales, intervals, chords, terminology.

Music 130. Introduction to the Art of Music, I. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only. I.

Music 131. Introduction to the Art of Music, II. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only. II.

Music 150. Music Ensemble. Credit ½ hour. Band, Orchestra, Chorus. Admission by consent of director. This course may be repeated to earn a maximum of 2 semester hours of credit.

PHILOSOPHY

Phil. 101. Introduction to Philosophy. Credit 3 hours. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. Phil. 101, 102, 105 form an approved humanities sequence in Liberal Arts and Sciences. Credit 3 hours. Prerequisite: Sophomore standing.

Phil. 102. Logic. Credit 3 hours. Reasoning, detection of fallacies, evidence. Prerequisite: Sophomore standing.

Phil. 105. Moral Ideas and Practice. Credit 2 Hours. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

Phil. 303. History of Greek and Roman Philosophy. Credit 4 hours. The teachings of the philosophers who figure most prominently in the Greek and Roman era—approximately the period from the sixth century B.C. to the fourth century A.D. Prerequisite: Junior standing or consent of instructor. I.

PHYSICAL EDUCATION FOR MEN

P. E. M. 101, 102, 103, 104. Prescribed Exercises. Credit 1 hour. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P. E. M. 101. Students enrolling for the second, third, or fourth time should register for P. E. M. 102, 103, 104, respectively.

P. E. M. 106. Developmental Activities. Credit 1 hour. Activities that contribute to the development and maintenance of physical fitness according to social and hygenic standards.

P. E. M. 107. Beginning Swimming. Credit 1 hour. For nonswimmers (inability to swim 100 yards). Students must have 8:00 and 9:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 109. Advanced Swimming. Credit 1 hour. For swimmers (ability to swim at least 100 yards). Student must have 8:00, 9:00 and 10:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 112. Individual Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 113. Double Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 114. Apparatus Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 117. Boxing. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 118. Wrestling. Credit 1 hour. Skill, knowledge, attitudes, and conditions.

P. E. M. 120. Personal Defense Activities. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 122. Individual Athletics. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 123. Weight Lifting. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 129. Volleyball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 130. Basketball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 132. Archery. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 136. Badminton. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 139. Backyard Sports. Credit 1 hour. Skills, knowledge, and conditions.

P. E. M. 140. Boating and Fishing. Credit 1 hour. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities or approval of the Director of Physical Education. Students must furnish their own personal equipment, but should purchase no equipment until after the first meeting of the class. Boats, canoes, life jackets will be furnished.

P. E. W. 142. Ballroom Dance. Credit 1 hour.

P. E. M. 143. American Square Dance. Credit 1 hour.

P. E. M. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors.

P. E. M. 151. Beginning Basketball. Credit 2 hours. Introductory skills, rules and strategy. For physical education majors.

P. E. M. 152. Beginning Football. Credit 2 hours. Introductory skills, rules and strategy. For physical education majors.

P. E. M. 153. Fitness Programs. Credit 2 hours. Physical fitness tests; calisthenics, medicine ball, bulldozer, grass, all-out and locomotor exercises; leadership techniques. For physical education majors. To be taken with P.E.M. 154.

P. E. M. 154. Swimming. Credit 2 hours. Crawl, back, breast, and side strokes; diving; life saving. To be taken with P.E.M. 153. For physical education major.

P. E. M. 155. Gymnastics. Credit 1 hour. Tumbling, apparatus stunts. To be taken with P.E.M. 156. For physical education majors.

P. E. M. 156. Wrestling. Credit 1 hour. Skills, rules. To be taken with P.E.M. 155. For physical education majors.

P. E. M. 157. Track and Field. Credit 1 hour. Track events, field events. To be taken with P.E.M. 158. For physical education majors.

P. E. M. 158. Baseball. Credit 1 hour. Baseball skills, rules. To be taken with P.E.M. 157. For physical education majors.

P. E. M. 209. History of Sports. Credit 3 hours. Development of sports and physical education in Europe and United States since 1750. For physical education majors only.

RECREATION

Recreation 170. Outdoor Recreational Sports. Credit 2 hours. Soccer, touch football, volleyball, softball, speedball.

Recreation 171. Indoor Recreational Sports. Credit 2 hours. Badmintor handball, paddle tennis, squash, racquets, table tennis, weight lifting.

Recreation 174. Camp Counseling. Credit 3 hours. Objectives, administra tion, techniques, activity programs, evaluation.

Recreation 176. Principles of Recreation. Credit 3 hours. History of leisu and recreation; concepts of play and recreation; major recreatic agencies.

PHYSICAL EDUCATION FOR WOMEN

P. E. W. 100. Conditioning Activities. Credit 1 hour. Foundation course o fering activities for the maintenance and improvement of physic fitness.

P. E. W. 102. Modified Activities. Credit 1 hour. Prescribed recreation sports. relaxation, and exercise. Prerequisite: Recommendation fro the Department of Health Service.

P. E. W. 105. Elementary Rhythms. Credit 1 hour. Beginning techniques the field of dance..

P. E. W. 106. Intermediate Rhythms. Credit 1 hour. Intermediate dan techniques, solo and group dance compositions. Prerequisite: Physic Education for Women 105 or consent of instructor.

P. E. W. 110. Elementary Swimming. Credit 1 hour. A beginning course f those with little aquatic experience.

P. E. W. 122. Speedball—Volleyball. Credit 1 hour. A fast out-of-doo sport combined with indoor volleyball.

P. E. W. 123. Basketball. Credit 1 hour.

P. E. W. 124. Volleyball. Credit 1 hour.

P. E. W. 125. Softball. Credit 1 hour.

P. E. W. 130. Badminton. Credit 1 hour. Personal equipment to be furnish by student.

P. E. W. 131. Golf. Credit 1 hour. Personal equipment to be furnished student.

P. E. W. 132. Bowling. Credit 1 hour.

P. E. W. 134. Tennis—Archery. Credit 1 hour. Personal equipment to furnished by the student.

P. E. W. 135. Archery. Credit 1 hour. Personal equipment to be furnish by student.

P. E. W. 140. Boating and Fishing. Credit 1 hour. Open to students w have completed two semesters of physical education, or consent of structor.

P. E. W. 141. Tumbling and Apparatus Stunts. Credit 1 hour. The si horse, parallel bars, stall bars, buck, etc., are used to develop skills balance and coordination on apparatus. Attention is directed towa safety factors necessary in utilizing this equipment. Forward ro backward rolls, group and individual stunts are used.

P. E. W. 142. Ballroom Dance. Credit 1 hour. II.

P. E. W. 143. American Square Dance. Credit 1 hour.

P. E. W. 144. Elementary Folk Dance. Credit 1 hour.

P. E. W. 150. Professional Orientation. Credit 2 hours. Introduction to fields of physical education, health, safety, recreation and dance.

P. E. W. 151. Body Mechanics, Gymnastics and Hockey. Credit 1 hour. Skill in fundamental body movements, posture and physical conditioning. For physical education majors.

P. E. W. 152. Volleyball and Softball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

P. E. W. 153. Hockey, Soccer and Basketball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

P. E. W. 154. Tumbling and Tennis. Credit 1 hour. Skills, stunts, trampoline; tennis skills, rules, tactics.

P. E. W. 166. Elementary School Games. Credit 2 hours. Games for classroom, playground, and gymnasium; programs, lesson planning, source materials. For physical education majors.

DANCE

Dance 160. Beginning Contemporary Dance. Credit 2 hours. For physical education majors.

Dance 235. Folk, Square and Social Dance. Credit 2 hours. Designed for men and women students majoring in physical education, recreation and dance. Methods of teaching and directing ballroom, folk and American square dances in school and community groups with emphasis on organization and leadership.

Dance 236. Folk Dance. Credit 1 hour. Designed for men and women students majoring in physical education, recreation and dance. Typical English and European folk dances with emphasis upon teaching and directing of school and community groups.

HEALTH EDUCATION

H. E. 281. First Aid. Credit 2 hours. Red Cross course in first aid.

PHYSICAL SCIENCE

Phys. Sci. 101. Introduction to the Physical Sciences. Credit 4 hours. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Two units of high school mathematics or consent of the department.

Phys. Sci. 102. Introduction to the Physical Sciences. Credit 4 hours. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Physical Science 101, or Division of General Studies 141.

PHYSICS

Physics 101. General Physics (Mechanics, Heat, Sound). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite. Trigonometry.

Physics 102. General Physics (Electricity, Magnetism, Light, and Mode Physics). Credit 5 hours. Lectures with demonstrations, recitation and laboratory. For students in arts and sciences, and architectur Prerequisite: Physics 101.

Physics 106. General Physics (Mechanics). Credit 4 hours. Lectures wi demonstrations, recitations, and laboratory. For students in enginee ing, Mathematics, physics, and chemistry. Prerequisite: Credit or re istration in mathematics 133.

Physics 107. General Physics (Heat, Electricity, Magnetism). Credit 4 hou Lectures with demonstrations, recitations, and laboratory. For studen in engineering, mathematics, physics, and chemistry. Prerequisit Physics 106; credit or registration in Mathematics 143. I.

Physics 108. General Physics (Sound, Light, Modern Physics). Credit hours. Lectures with demonstrations, recitations, and laboratory. F students in engineering, mathematics, physics, and chemistry. Pr requisite: Credit or registration in Physics 107 and Mathemati 143. II.

Physics 281. Intermediate Atomic Physics. Credit 3 hours. Elementa charged particles, electromagnetic radiation, waves, and particle hydrogen atom, atomic spectra, and electron distributions: radioactivi disintegration of nuclei, nuclear energy. Prerequisite: General Physi and Calculus.

Physics 321. Theoretical Mechanics. Credit 4 hours. Laws of motion, vecto statics, energy and momentum principles for a particle and for syste or particles, motion of a particle under constant forces, plane motion a rigid body, simple harmonic motion and resonance, impact. Pr requisite: General Physics and Calculus.

Physics 322. Theoretical Mechanics. Credit 4 hours. Continuation of Phys 321. Motion of a particle under a variable force, central field moti accelerated reference systems, motion of a particle subject to co straints, rotation of a rigid body in three dimensions, vibrating syste and normal coordinates, generalized coordinates. Prerequisite: Phys 321.

Physics 341. Electricity and Magnetism. Credit 4 hours. Lectures, problen and laboratory. This course is fundamental to advanced courses a should be elected as early as possible by those intending to special in physics. Fundamental laws logically developed and summarized Maxwell's equations. Forces and energies associated with electric a magnetic properties of matter. Generation and propagation of elect magnetic waves. Prerequisite: General Physics and Calculus; Reg tration in Math. 341, 343 or 345.

Physics 342. Electricity and Magnetism. Credit 4 hours. Continuation Physics 341. Boundary conditions and special methods in bound value problems; interpretation of dielectric and magnetic properties matter from the point of view of atomic and crystalline properties; of complex notation in circuit problems; coupled circuits; nonlin circuits; transmission lines; radiation from antennas; transmission a reflection of electromagnetic waves. Prerequisite: Physics 341.

Physics 360. Thermodynamics. Credit 3 hours. The first, second, and th laws of thermodynamics; the properties of the entropy, enthalpy, f energy, and internal energy functions; reversible and irreversi processes; applications to homogeneous and hetrogeneous syster chemical reactions and the mass action law. Prerequisite: Gene Physics and Calculus.

Physics 362. Kinetic Theory and Statistics. Credit 3 hours. A lecture problem course presenting the fundamentals of kinetic theory and elementary introduction to statistical mechanics. Topics covered clude equations of state, the distribution law, viscosity, thermal c duction, diffusion, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Di statistics and applications. Applications are discussed. Prerequis Physics 360 or consent of instructor.

hysics 381. Atomic Physics. Credit 3 hours. A lecture and problem course presenting our modern knowledge of the nature and properties of electrons, light quanta, atoms, and molecules. Topics include the atomic nature of matter, the properties of free electrons, photons and their interaction with matter, atomic spectra and structure, molecular spectra and structure, an introduction to the ideas of quantum mechanics, binding in molecules and crystals, and an introduction to some solid state phenomena. Prerequisite: General Physics and Calculus.

hysics 382. Nuclear Physics. Credit 3 hours. A lecture and problem course presenting our modern knowledge of the properties of nuclear particles, natural and artificial radioactivity, laboratory equipment for producing and studying high energy particles, nuclear disintegration, the interaction of nuclear particles with each other and with matter, cosmic rays, mesons and recent developments in high energy nuclear physics, and the application of nuclear phenomena to some practical problems. Prerequisite: Physics 381.

OLITICAL SCIENCE

l. Sci. 103. Introduction to Political Science. Credit 3 hours. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: Scope and method of political science, constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy.

l. Sci. 150. American Government: Organization and Powers. Credit 3 hours. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments in state and nation. Prerequisite: Sophomore standing.

l. Sci. 151. American Government: Functions. Credit 3 hours. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power, regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

. Sci. 381. American Foreign Relations. Credit 3 hours. Participation in international affairs; presidential initiative; development and organization of the Department of State; diplomatic intercourse; consular service; treaty-making power; development of foreign policy and its application to areas of major interest. Prerequisite: Six hours of political science. II.

Sci. 384. International Relations. Credit 3 hours. An examination of the nature of the national state system, of the forces affecting international relations, of the sources of conflicts in international politics, and of their solution. Prerequisite: Six hours of political science. I.

YCHOLOGY

ch. 100. Introduction to Psychology. Credit 4 hours. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. Prerequisite: Second semester freshman standing.

ch. 125. An Introduction to the Fields of Psychology. Credit 4 hours. An introduction to the basic fields of psychology, including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. Students taking this course may not take Psychology 220 at the Urbana campus for credit. Prerequisite: Psychology 100, or equivalent, or junior standing. I.

Psych. 135. Statistical Methods in Psychology. Credit 3 hours. Applicatio of elementary statistical methods to psychological data. No credit fo this course will be given to students who receive credit for Economic 170 or Mathematics 161. Prerequisite: Psychology 100. II.

Psych. 145. Industrial Psychology. Credit 3 hours. A consideration of socic psychological principles of behavior in business and industry and c the scientific methods of investigation in this area, and a survey c specific methods of personnel technology. Credit is not given for bot Psych. 145 and Psych. 245 at Urbana. Prerequisite: Psychology 100. I

Psych. 150. Personality and Human Relations. Credit 3 hours. An introduc tion to the study of personality in relationship to the social enviror ment. Application of psychological principles to social problems. Pr requisite: Psychology 100 or equivalent. II.

RHETORIC

Rhetoric 101. Freshman Rhetoric and Composition. Credit 3 hours. Th course provides elementary training and practice in the comprehensic and expression of written English. Students with 95 or more cred hours receive only 2 hours credit.

Rhetoric 102. Freshman Rhetoric and Composition. Credit 3 hours. Th course provides elementary training and practice in the comprehensic and expression of written English. Students with 95 or more cred hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

Rhetoric 133. Principles of Composition. Credit 3 hours. Practice in comp sition with emphasis on organization, paragraphing and senten structure. For the student whose career requires competence in wr ing clear, precise prose as an adjunct to other professional activit Credit is not given for Rhetoric 133 in addition to Rhetoric 143. Pr requisite: Rhetoric 102 or equivalent.

Rhetoric 143. Intermediate Expository Writing. Credit 3 hours. Practice expository types, with emphasis on style and critical analysis. Reco mended for rhetoric majors. Credit is not given for Rhetoric 143 addition to Rhetoric 133. Prerequisite: a grade of "A" or "B" Rhetoric 102 or consent of instructor.

Rhetoric 144. Narrative Writing. Credit 3 hours. Practice in descripti narrative sketches, stories. Prerequisite: Rhetoric 101 and 102; sopl more standing. II.

Rhetoric 151. Business Letter Writing. Credit 3 hours. Study of the c respondent's problems in business and practice in writing letters, w emphasis on organization, persuasion, and presentation from the rea er's point of view. For the student whose career will require competer in writing letters. Prerequisite: Rhetoric 101 and 102.

RHETORIC FOR FOREIGN STUDENTS

(See also Speech for Foreign Students)

Rhetoric 103. English as a Foreign Language. No credit. An intensive view course in basic English structure for foreign students who a inadequately prepared for Rhetoric 101. Prerequisite: Reading kno edge of English and ability to understand instructions.

Rhetoric 104. English as a Foreign Language. No credit. A continuation Rhetoric 103. A rapid and intensive review of basic English struct and a study of more complicated sentence patterns with practice oral and written composition, designed for students who may be adequately prepared for Rhetoric 101. Prerequisite: Rhetoric 103 consent of instructor.

Rhetoric 105. English as a Foreign Language. No credit. Intensive writing practice, designed to remedy the foreign student's problems in the area of his special difficulties. May be taken concurrently with Rhetoric 101. Prerequisite: Rhetoric 104 or consent of instructor.

SOCIAL SCIENCES

Soc. Sci. 111. The Individual in Society. Credit 4 hours. A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 113. World Patterns and World Problems. Credit 4 hours. A general education course designed to bring the student to an understanding of the geographic, economic, an political bases of the present world situation. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 116. Family Living. Credit 4 hours. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. Prerequisite: Sophomore standing or consent of instructor.

SOCIOLOGY

Sociol. 100. Introduction to Sociology. Credit 3 hours. Introductory analysis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. Prerequisite: Sophomore standing.

Sociol. 130. Society and Individual Development. Credit 3 hours. Nature of person and relation to institutions, social order, and development. Prerequisite: Sociology 100. I.

Sociol. 140. Social Control. Credit 3 hours. The methods and techniques of group social control of individuals in small groups, societies, and large publics; the innovations in methods of social control resulting from the development of the new mass media of communication. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152. II.

Sociol. 276. Sociology of the City. Credit 3 hours. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

SPANISH

Spanish 101. Elementary Spanish. Credit 4 hours. For students who have no credit in Spanish. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for Spanish 101 without 102.

Spanish 102. Elementary Spanish. Credit 4 hours. Continuation of Spanish 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish.

Spanish 103. Intermediate Spanish. Credit 4 hours. Rapid reading, review of grammar, composition, conversation. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 104. Intermediate Spanish. Credit 4 hours. Continuation of Spanis 103. Prerequisite: Spanish 103 or three years of high school Spanish

Spanish 113. Elementary Composition and Conversation. Credit 2 hours Conducted largely in Spanish. May be taken concurrently with Spanis 103. Does not count toward the major in Spanish. Prerequisite: Spanis 102 or two years of high school Spanish.

Spanish 114. Elementary Composition and Conversation. Credit 2 hours May be taken concurrently with Spanish 104. Does not count towar the major in Spanish. Prerequisite: Spanish 113 or equivalent. II.

Spanish 201. Introduction to Spanish Literature. Credit 3 hours. Readin of representative authors of Spain. Prerequisite: Spanish 104 or fou years of high school Spanish. I.

Spanish 202. Introduction to Spanish American Literature. Credit 3 hours Reading of representative authors of Spanish America. Prerequisite Spanish 104 or four years of high school Spanish. II.

SPEECH

Group Remedial Speech. No credit. Students with articulatory prob lems, particularly those with foreign dialects, may register for thi course at the Student Counseling Service, Room 303, in advance of th dates specified. Prerequisite: Consent of the instructor.

Speech 101. Principles of Effective Speaking. Credit 3 hours. Preparatio and presentation of short informative and persuasive speeches, wit emphasis on the selection and organization of material, methods o securing interest and attention, and the elements of delivery. Credit hours. Students with 95 or more credit hours receive only 2 hours credi

Speech 105. Voice and Articulation. Credit 2 hours. A drill course for th improvement of the normal speaking voice. Credit 2 hours. Student with 95 or more credit hours receive only 1 hour credit.

Speech 107. Parliamentary Procedure. Credit 2 hours. Principles and prac tice of parliamentary procedure. Students with 95 or more credit hour receive only 1 hour credit.

Speech 111. Business and Professional Speaking. Credit 2 hours. Study preparation, and presentation of the chief types of business speeche with special attention to conferences, sales talks, interviews, job ap plications. Credit 2 hours. Prerequisite: Speech 101; sophomore stan ing.

Speech 113. Group Discussion and Conference Leadership. Credit 3 hours Study of leadership, group process, and interpersonal relations in th small group, conference, and the public forum, with emphasis on prac tice in leading and participating in various types of public discussio and conference, with materials drawn from current public question Prerequisite: Sophomore standing. II.

Speech 117. Argumentation. Credit 3 hours. Analysis, brief-drawing an research; types of evidence, methods of reasoning, and refutation; stud of types of debate and a series of speeches and debates upon the cu rent national proposition. Prerequisite: Speech 101; sophomore stan ing. II.

Speech 141. Oral Interpretation of Literature. Credit 3 hours. Principles o interpretation, analysis, and oral reading of prose literature, dramat literature, and verse. Students with 95 or more credit hours receiv only 2 hours credit.

Speech 161. Fundamentals of Acting. Credit 3 hours. A study of the metho of acting, with emphasis given to basic stage techniques. The role o the character in relation to the play as a whole; the intellectual an emotional values of the play and their interpretation by means of voic and action. Prerequisite: Credit or concurrent registration in Speec 141. II.

peech 164. Radio Speaking. Credit 2 hours. Preparation and presentation of the chief types of radio speeches, and of the interview, round table, and discussion; microphone experience. Prerequisite: Consent of instructor. II.

peech 221. Persuasion. Credit 3 hours. Study of the nature and methods of attention, suggestion, and motivation as applied to speechmaking for the influencing of group opinion and action. Preparation and presentation of short persuasive speeches. Prerequisite: Speech 101; junior standing. I.

PEECH FOR FOREIGN STUDENTS

See also Rhetoric for Foreign Students.)

peech 103. Speech for Foreign Students. No credit. A study of the sounds and intonation patterns of American English and the relation of sound to spelling, including drill sessions designed to improve the student's ability to speak and understand English at normal conversational speed. Prerequisite: Reading knowledge of English and ability to understand instructions.

peech 104. Speech for Foreign Students. No credit. Pronunciation of English for students whose native language is not English. A study of the sounds and intonation patterns of American English, designed to improve the student's ability to speak at a normal conversational speed. Course deals with material in pronunciation similar to Speech 103 but is designed for more advanced students. Prerequisite: Speech 103 or consent of the instructor.

HEORETICAL AND APPLIED MECHANICS

A. M. 150. Analytical Mechanics (Statics). Credit 2 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic states, forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. Prerequisite: Registration in Mathematics 143; Physics 106.

A. M. 151. Analytical Mechanics (Statics). Credit 3 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, graphic statics, moment diagrams, virtual work, forces due to friction centroid. Prerequisite: Registration in Mathematics 143; Physics 106.

A. M. 154. Analytical Mechanics (Statics and Dynamics). Credit 4 hours. A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. Prerequisite: Registration in Mathematics 143; Physics 106.

A. M. 156. Analytical Mechanics (Statics and Dynamics). Credit 5 hours. A combination of Theoretical and Applied Mechanics 150 and 211. Prerequisite: Registration in Mathematics 143; Physics 106.

A. M. 171. Elements of Mechanics (Statics). Credit 3 hours. Resultants and equilibrium of force systems; conditions of equilibrium appiled to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. Prerequisite: Mathematics 123.

A. M. 172. Strength of Materials. Credit 3 hours. Relationships between external forces acting on beams and the stresses produced, shear, moment, slope and deflection diagrams, moment of inertia; columns. For architects only. Prerequisite: Theoretical and Applied Mechanics 171.

T. A. M. 211. **Analytical Mechanics (Dynamics). Credit 3 hours.** Displace ment, velocity, and acceleration of a particle; relation between force acting on rigid bodies and the changes in motion produced; translation rotation; plane motion; solutions using the principles of force, mass and acceleration, work and energy, impulse and momentum. Prerequ site: Theoretical and Applied Mechanics 150 or 151.

T. A. M. 221. **Elementary Mechanics of Deformable Bodies. Credit 3 hours** Relationships between external forces acting on elastic bodies and th stresses and deformations produced; tension and compression members members subjected to torsion and to bending; columns; combine stresses; properties of materials. Prerequisite: Theoretical and Applie Mechanics 150, 151, 154 or 156.

T. A. M. 223. **Mechanical Behavior of Solids. Credit 1 hour.** Tests of stee cast iron, aluminum alloys, concrete and wood; determination of suc mechanical properties as strength, hardness, ductility, energy, resis ance; engineering significance of mechanical properties. Prerequisit Credit or registration in Theoretical and Applied Mechanics 221.

T. A. M. 224 **Behavior of Materials. Credit 3 hours.** Introduction to atom and molecular structure of metals, cement, concrete, plastics, ceramic and glass; response of these materials to rapid, steady, and repeate loads at various temperatures (and environments) in terms of rhe logical models; fracture behavior of specific materials, i.e., stress ru ture, brittle fracture, and fatigue of metals and concrete. Prerequisit Theoretical and Applied Mechanics 221.

Index

ccountancy courses, 103
ctivities, extra-curricular, 52
Student fee, 40-41
dministrative officers, 11
dmission, 24
Examinations, 36
Requirements, 26
Non-resident students, 34
Special admissions, 38
Special scholastic requirements, 34
Subjects for specific college and curricula, 28
Transfer students, 32
dvanced Placement, 38
eronautical Engineering, curriculum, 74
nthropology courses, 103
rchitectural Engineering, curriculum, 79
rchitecture, 77
Courses, 104
Curriculum, 79
Electives, 78
my Reserve Officers' Training Corps, 100
Courses, 117
t, 80
Courses, 104-105
Curriculum, 80
hletics, 57

ological Science courses, 105
ard of Trustees, 10
ookstore, 61
siness Law, 106

endar, 12
amic Engineering curriculum, 74
Chemical Engineering, curriculum, 86
Chemistry courses, 106
Curriculum, 86
Chicago Departments Committee, 10
Civil Engineering, courses, 108
Curriculum, 75
Commerce and Business Administration, College of, 65
Commerce and Law, 67
Commercial teaching, 68, 70
Curriculum, 70
Electives, 67
Prejournalism, 68
Requirements for all commerce students, 69
Requirements for graduation, 66
Counseling Services, preadmissions counseling, student counseling services, 49
Courses of instruction, 103
Required of all students, 62
Extramural, 5
Correspondence, 6

Dance Courses, 121
Dean of Men, 48
Dean of Students, 47
Dean of Women, 48
Debating, 56
Dentistry, predental curriculum, 89

Economics courses, 109
Education courses, 109
Electives, Architecture, 78
Commerce, 67
Liberal Arts and Sciences, 84

Electrical Engineering courses, 110
Curriculum, 75
Employment, student, 46
Engineering, College of, 71
Aeronautical, 74
Ceramic, 74
Civil, 75
Common program for freshmen, 73
Electrical, 75
Engineering Mechanics, 75
Engineering Physics, 75
General Engineering, 76
Industrial, 76
Liberal Arts combined program, 88
Mechanical, 76
Metallurgical, 77
Requirements for graduation, 71
Engineering Physics, curriculum, 75
English courses, 110
Examinations, entrance, 36
General education development, 37
Lowest quarter, 31, 35
Extracurricular activities, 52

Faculty, 14
Fees, see Tuition and Fees
Food Service, 61
Forestry, curriculum, 89
French courses, 110

General Deposit, 40
General Educational Development, 37
General Engineering courses, 111
Curriculum, 76
Geography courses, 111
Geology courses, 112
German courses, 113
Grading system, 62

Health Education courses, 121
Health Service, 61
History courses, 113
Home Economics curriculum, 8
Honors, 55
Hospital and Medical Service, 5
Housing, 6
Humanities courses, 114
Hygiene courses, 114

Industrial Engineering, curriculum, 76

Journalism and Communication prejournalism curriculum, 68, 90

Law, prelaw curriculum, 67, 90
Liberal Arts and Sciences, College of, 80
Chemistry and Chemical Engineering, 86
Continuation program in nursing, 92
Engineering combined program, 88
Forestry, 89
General curriculum, 81
Home Economics, 89
Nursing, 92
Occupational Therapy, 92
Predental, 89
Prejournalism, 90
Prelaw, 90
Premedical, 90
Preveterinary medicine, 96
Required subjects, 82
Requirements for graduatio 82, 83, 84
Teacher Education, 94
Library, 58
Loan funds, 46

Management, 115
Marketing, 115
Mathematics courses, 115-116
Mechanical Engineering courses, 117
Curriculum, 76
Medicine, premedical curriculum, 90
Metallurgical Engineering, curriculum, 77
Military Science and Tactics, 100
courses, 117
Miscellaneous fees, 42
Music, courses, 117-118

Nonresident students, admission, 34
Nursing, 92
Continuation program, 92

Occupational Therapy, 92

Philosophy courses, 118
Physical Education, College of, 97
Courses, 118
Physical Science courses, 121
Physics courses, 121
Political Science courses, 123
Prejournalism, curricula, 68, 90
Prelaw, curricula, 67, 90
Psychology courses, 123-124

Recreation courses, 119
Refunds of fees, 42
Rhetoric courses, 124-125
R.O.T.C., 8, 100

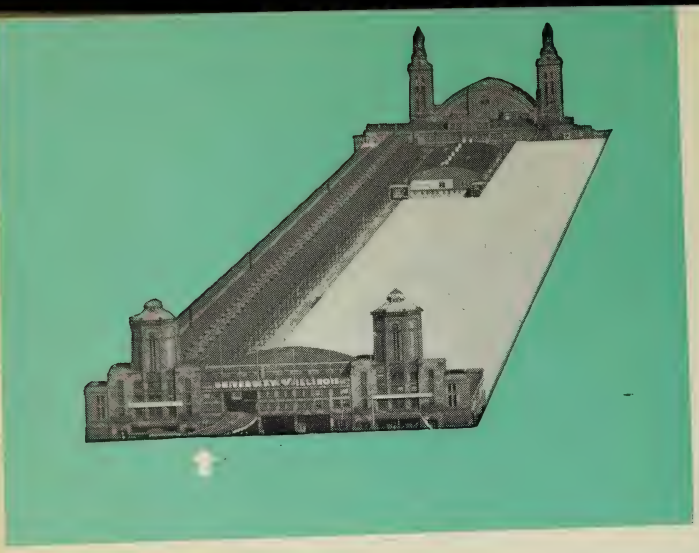
Scholarships, 45
Edmund J. James, 55
Military, 44
Selective Service deferment, 45
Semester fees, 40
Social Science courses, 125
Sociology courses, 125
Spanish courses, 125-126
Special scholastic requirements, admission, 34
Speech Improvement Laboratory, 51
Speech courses, 126-127
Student Counseling Service, 49
Student Welfare, 47
Dean of Men, 48
Dean of Students, 47
Dean of Women, 48
Hospital and Medical Service, 51
Loan funds, 46
Speech Improvement Laboratory, 51
Student Counseling Service, 49
Student Employment, 46
Subjects required for specific colleges and curricula, 27-28
Summer Session fees, 41

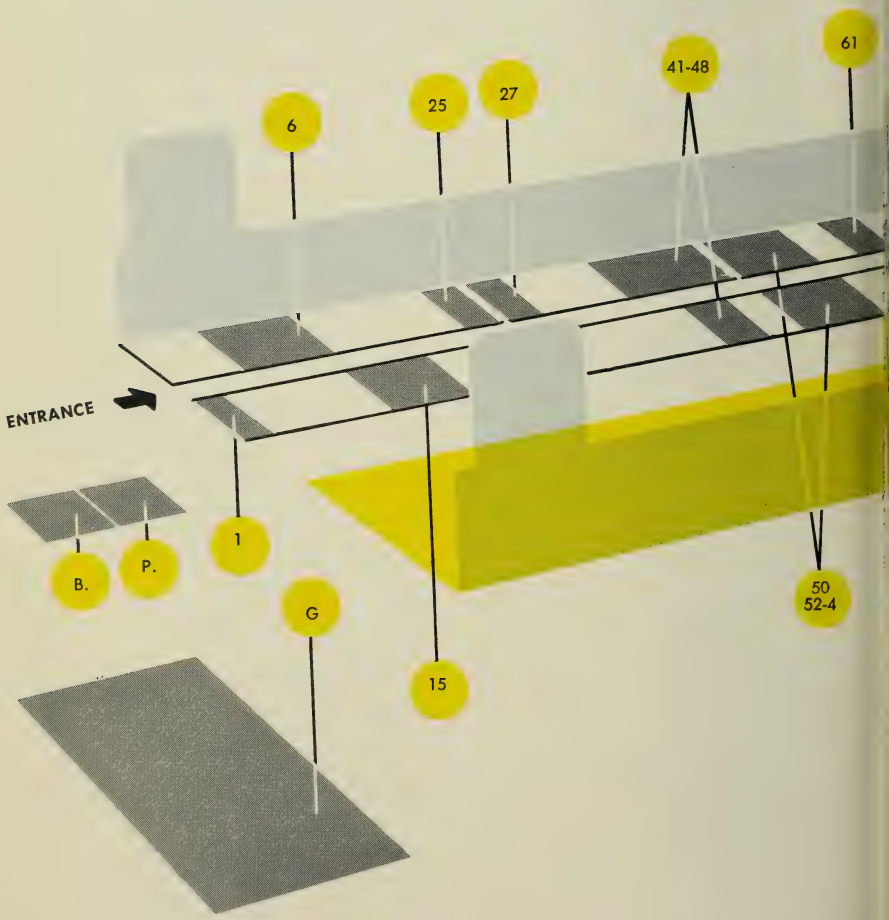
Talented Student Program for High School Seniors, 39
Teacher Education, curricula, 94
Theoretical and Applied Mechanics courses, 127-128
Transfer students, admission, 32
Tuition and Fees, 40
Deferred, 42
General Deposit, 40
Miscellaneous fees, 42
Refunds, 42
Semester fees, 40
Summer Session fees, 41

University Services, 58
Urbana, transfer to, 39

Veterans information, 43
Veterinary Medicine, pre-veterinary medicine curriculum, 96

Withdrawal from University, 41




6
25
27
41-48
61
ENTRANCE
B.
P.
1
G
15
50
52-4

B.) OF ENGINEERING

P. ETERIA

G. AND WOMEN'S

1 MS AND

6

15

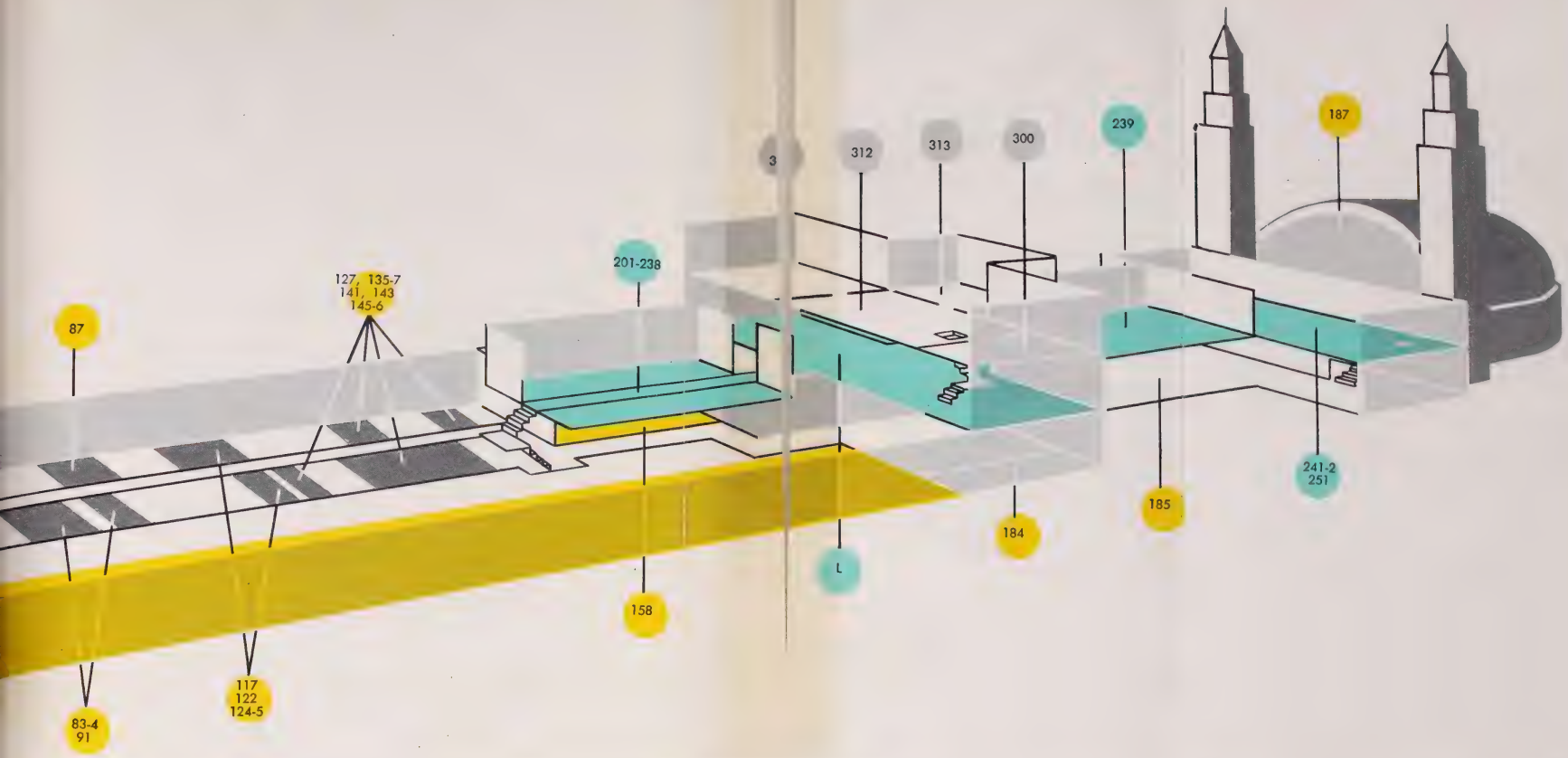
241-2
251 ARCHITECTURE ROOMS

300 STUDENT COUNSELING BUREAU

312 LOUNGE

313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN

318 HEALTH SERVICE



ROOM NUMBERS OF DEPARTMENTS AND POINTS OF INTEREST

- B. RESERVE BOOK SECTION
- P. POLICE HEADQUARTERS
- G. MEN'S GYM
- 1 INFORMATION DESK
- 6 SNACK BAR AND LOUNGE
- 15 ADMISSIONS AND RECORDS OFFICE
- 25 ASSOC. DEAN OF LAS
- 27 ASSOC. DEAN OF COMMERCE
- 41-48 BIOLOGICAL SCIENCES LABORATORIES
- 50, 52-4 CHEMISTRY LABORATORIES
- 61 CONCRETE TESTING LABORATORY
- 64 MACHINE SHOP
- 70-1, 77 WELDING LABORATORY, FOUNDRY, SAND TESTING LABORATORY
- 83-4, 91 ART ROOMS
- 87 BOOKSTORE
- 117, 122, 124-5 PHYSICS LABORATORIES
- 127, 135-7, 141, 143, 145-6 GENERAL ENGINEERING DRAWING
- 158 PHYSICAL PLANT
- 184 ASSOC. DEAN OF ENGINEERING
- 185 STUDENT CAFETERIA
- 187 AUDITORIUM AND WOMEN'S GYM
- 201-238 LECTURE ROOMS AND CLASSROOMS
- L LOUNGE
- 239 LIBRARY
- 241-2, 251 ARCHITECTURE ROOMS
- 300 STUDENT COUNSELING BUREAU
- 312 LOUNGE
- 313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN
- 318 HEALTH SERVICE

C
IZu3Ic
1961/62
cop. 32

university of illinois

chicago undergraduate division

CATALOG
61 - 62

UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

Chicago Professional Colleges

PUBLIC TRANSPORTATION

TO CHICAGO UNDERGRADUATE DIVISION

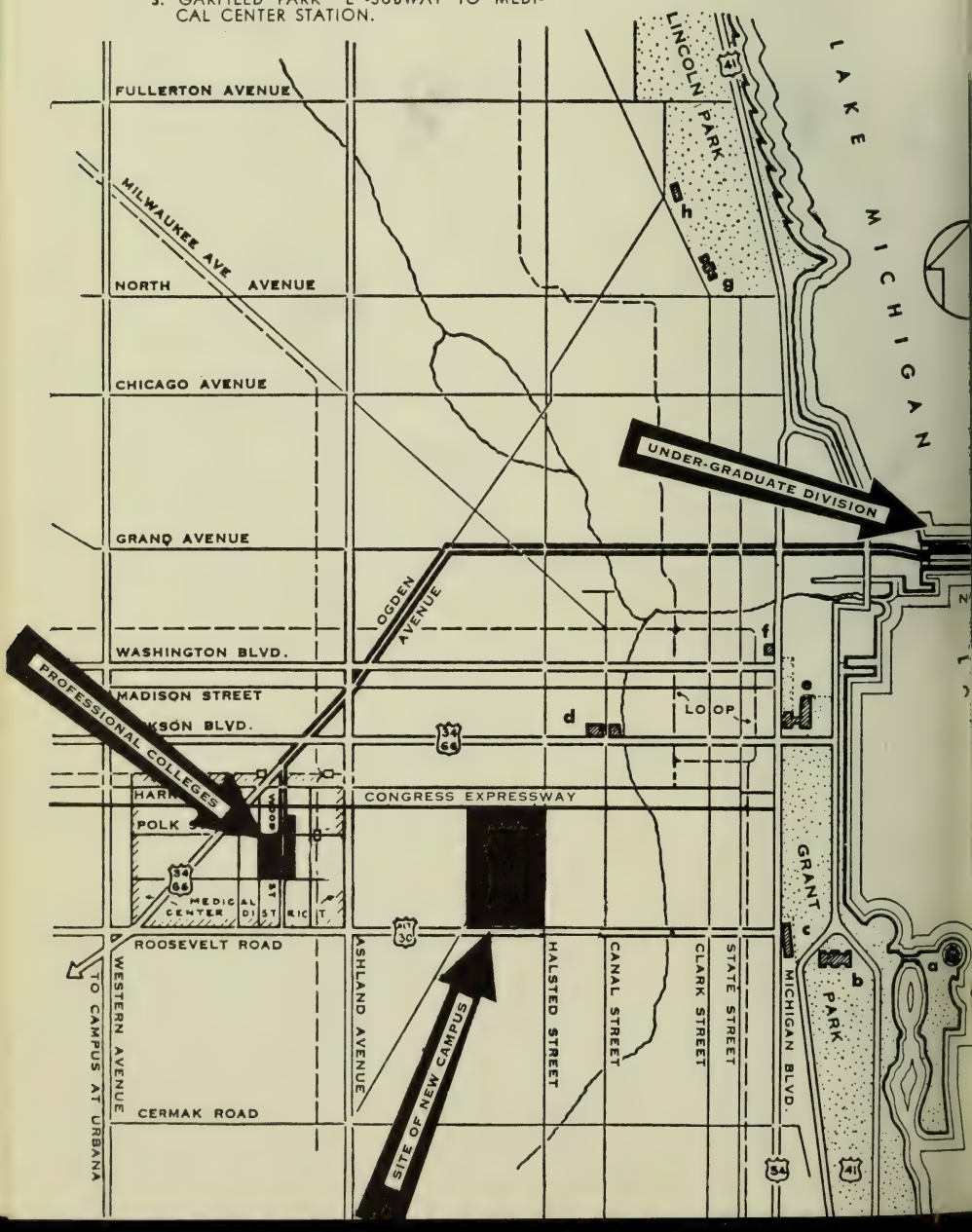
1. NORTH-SOUTH SUBWAY, TRANSFER AT GRAND AVENUE.
2. ANY NORTH-SOUTH BUS LINE, TRANSFER AT GRAND AVENUE.
3. GRAND AVENUE BUS.
4. CANAL-WACKER BUS (FROM LOOP).

TO PROFESSIONAL COLLEGES

1. N. OGDEN AVENUE BUS TO POLK-WOOD STREETS.
2. DOUGLAS PARK "L"-SUBWAY TO POLK STREET.
3. GARFIELD PARK "L"-SUBWAY TO MEDICAL CENTER STATION.

LEGEND

- a ADLER PLANETARIUM
- b CHICAGO NATURAL HISTORY MUSEU
- c ILLINOIS CENTRAL R.R. STATION
- d UNION R.R. STATION
- e ART INSTITUTE
- f CRERAR LIBRARY
- g CHICAGO HISTORICAL SOCIETY
- h CHICAGO ACADEMY OF SCIENCES



Jniversity of Illinois

hicago Undergraduate Division

avy Pier

nicago

C
378.2
B 2 v 31c
cop 2

Contents

	Page
Your University	4
Board of Trustees	10
Administrative Officers	11
Calendar	12
Faculty	14
How to Enroll	26
Admission Requirements	29
Special Programs	42
Veterans' Information	45
Selective Service Deferment	46
Tuition and Fees	47
Scholarships	53
University Services	55
Loans and Employment	56, 57
Extracurricular Activities	64
Honors	68
Courses Required of All Students	69
College of Commerce and Business Administration	72
College of Engineering	78
Architecture and Art	84, 86
College of Liberal Arts and Sciences	88
College of Physical Education	103
Army Reserve Officer's Training Corps	106
Courses of Instruction	109
Index	143

Your Universit

The Chicago Undergraduate Division of the University of Illin is entering its sixteenth school year. Since 1946 this campus of t University has offered a well-rounded educational program to thc sands of students who have found it to their advantage to live in t Chicago metropolitan area while attending college. The campus conveniently located on Chicago's Navy Pier, at the foot of Gra Avenue at Lake Michigan. This Division offers work in four colleg —Commerce and Business Administration, Engineering (includi Architecture, Architectural Engineering, and Art), Liberal Arts a Sciences (including Education), and Physical Education.

In addition, preprofessional courses of study necessary for adm sion to the professional colleges of medicine, dentistry, pharma veterinary medicine, journalism, law, nursing, and occupational th apy are available.

The courses, held during the daytime hours only, are exactly l those offered in the same fields of study on the University of Illin campus at Urbana-Champaign. The tuition and admission requi ments are the same on both campuses.

Excellent instructional facilities are provided in the school's s enty-five classrooms and thirty-five modern, fully-equipped laborator A 100,000-volume library, recreational facilities, well-furnish lounges, and food service supplement the academic program. A la gymnasium adjacent to the main building houses the athletic progra The basic courses in Army ROTC are available on a voluntary b for men students.

The academic life of the student is supervised by the dean a the staff of the college in which the student enrolls. For most matt of student welfare and activities, the student is advised by the De of Students and his staff. Professional counseling and scientific te ing services are available to students and prospective students throu the Student Counseling Service.

The Chicago Undergraduate Division, through its educatio social, and cultural program, provides its student body with the sa high degree of service which has been so long a part of the tradit of the University of Illinois.

SOME QUESTIONS AND ANSWERS

The University of Illinois welcomes the interest you show by eading this catalogue. The offerings of the Chicago Undergraduate Division are presented in considerable detail in this publication. However, our experience has taught us that there are some questions hat are asked more frequently than others.

You will find outlined below some of the items of information ost often sought.

CAN I EARN A DEGREE AT THE CHICAGO UNDERGRADUATE DIVISION?

No, not yet. At the present time this Division offers generally the first two years' work in:

Commerce and Business Administration; Engineering (including two and one-half years of Architecture and one year of Art); Liberal Arts and Sciences (including Teacher Education); Physical Education (professional courses for both men and women). Look on page 9 for a complete listing of the curricula offered.

EXCEPTIONS:

The complete *three-year premedical* and *prelegal* programs are offered at this Division. Students apply directly to the professional colleges after completing the preparatory program.

NIGHT CLASSES?

Day classes only are offered as part of the program of this Division; however,

EXTRAMURAL COURSES:

The facilities of this Division are used at night for extramural courses offered under the auspices of the Division of Extension. Call the Illini Center, RAndolph 6-7750, for further information.

SCHOOL OF SOCIAL WORK:

Complete graduate degree program is offered in Chicago. Call MOnroe 6-3900, Extension 8351, or write to Room 176, 833 S. Wood Street, Chicago 12, Illinois.

OTHER UNIVERSITY OF ILLINOIS FACILITIES IN CHICAGO, on the Professional Campus, are

Medicine — Occupational Therapy — Dentistry
Pharmacy — Social Work — Nursing
Graduate School (Health Sciences)

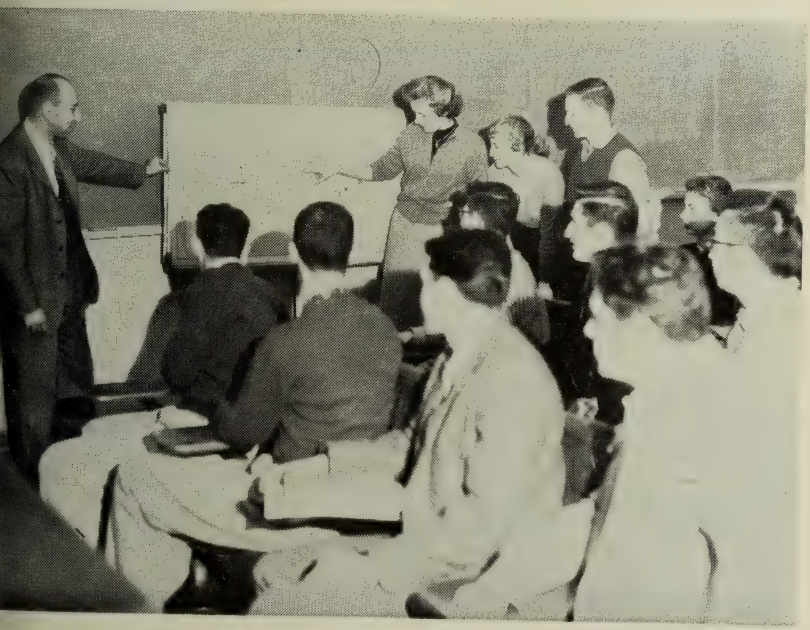
For information: write to University of Illinois, 1853 W. Polk Street, Chicago 12, Illinois, or call MOnroe 6-3900.

- **WHERE IS THE CHICAGO UNDERGRADUATE DIVISION?**
  At the foot of Grand Avenue at Lake Michigan.
- **WHERE IS THE MAIN CAMPUS OF THE UNIVERSITY OF ILLINOIS?**
  In Urbana, about 130 miles south of Chicago.
- **ARE THE COURSES TAUGHT AT THE CHICAGO UNDERGRADUATE DIVISION THE SAME AS THOSE IN URBANA?**
  Yes. One can think of this Division as a section of the Urba campus transplanted to Chicago.
- **TUITION AND FEES:**
  For residents of Illinois, $120 per semester.
  For nonresidents of Illinois, $295 per semester.
  All NEW students pay an additional $5 general deposit.
  Payment in full on the day you register; or deferred fee p (50% at time of registration, balance within 30 days).
- **FINANCIAL AIDS:**
  Scholarships, loans, part-time employment. See pages 53 and
- **HOUSING:**
  Since almost all our students live at home, no housing is provid However, students in need of housing as well as students tra ferring to Urbana from the Chicago Undergraduate Divis may obtain information from the Dean of Students, Room 313
- **STUDENT ACTIVITIES:**
  Over fifty different student organizations are active on campus. See page 64.
- **CORRESPONDENCE COURSES:**
  For information write to
  Division of University Extension
  University of Illinois
  Urbana, Illinois
  Correspondence courses are not offered through the facilitie this campus.
- **FOREIGN STUDENTS:**
  Foreign students from many countries throughout the world now attending on this campus. Special courses in rhetoric speech are offered for those who do not have proficiency in English language because of their foreign background. Th classes are designed to take care of the individual needs of student. Special advisors assist foreign-born students eval their abilities, plan their programs and interpret regulat

applicable to foreign students. This service includes assistance on problems of extension of stay, permission to accept employment, border-crossing, and the details of maintaining legal status.

FACILITIES:

75 classrooms
35 modern, fully-equipped laboratories
100,000-volume library
Recreational facilities and lounges
Food service
Gymnasium facilities for men and women
Auditorium facilities for educational, social and special events
Student union



A typical class.

Dramatic arts and play production
Radio, television, recording equipment
Bookstore
Student newspaper and photography facilities
Musical instruments for loan
Record library and listening facilities
Health Service

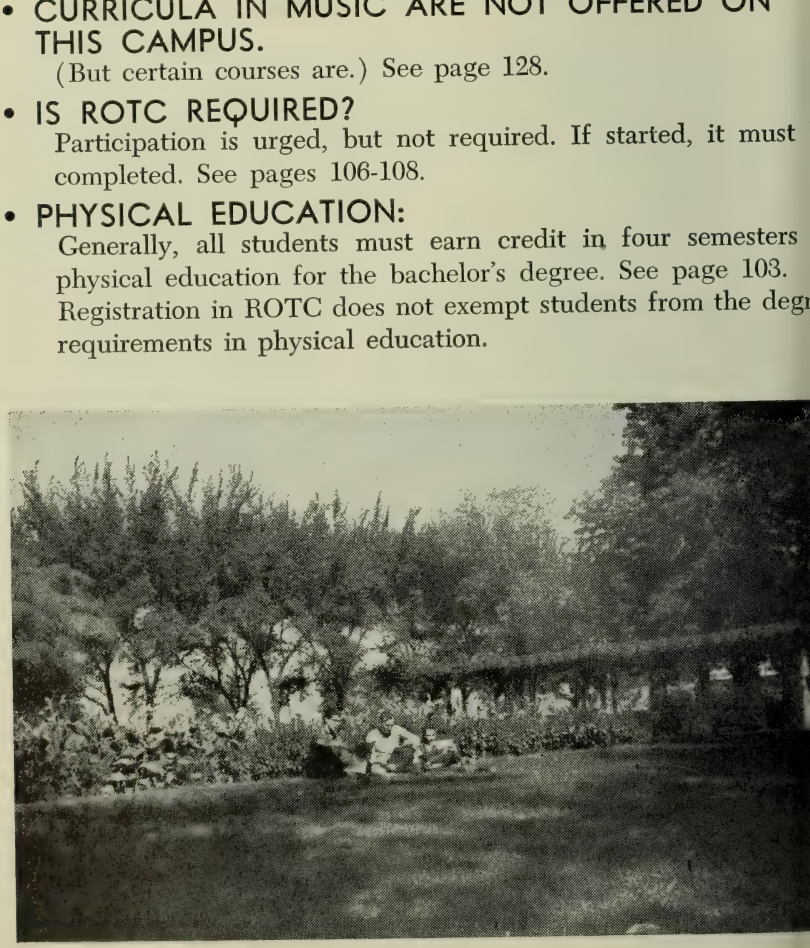
- **ATHLETICS:**
  1. Varsity competition in

Basketball	Gymnastics
Baseball	Soccer
Cross Country	Swimming
Football	Tennis
Golf	Track and Field
	Wrestling

  2. Intramural sports program serves over 1200 students ea semester.
  3. Women's Athletic Association and Orchesis

Sports Activities	Dance Activities

- **STUDENT COUNSELING SERVICES:**
  Educational and vocational guidance counseling. See pages 57-6
- **CURRICULA IN MUSIC ARE NOT OFFERED ON THIS CAMPUS.**
  (But certain courses are.) See page 128.
- **IS ROTC REQUIRED?**
  Participation is urged, but not required. If started, it must completed. See pages 106-108.
- **PHYSICAL EDUCATION:**
  Generally, all students must earn credit in four semesters physical education for the bachelor's degree. See page 103. Registration in ROTC does not exempt students from the degr requirements in physical education.



The West Campus–Navy Pier Park.

• COLLEGES AND CURRICULA OFFERED

LIBERAL ARTS AND SCIENCES

Chemical Engineering
Chemistry
Combined Engineering-Liberal Arts
Forestry (one year only)
General
Home Economics (one year only)
Occupational Therapy
Physics
Speech Correction
Preprofessional curricula:
Predentistry
Prejournalism
Prelaw
Premedicine
Prenursing
Prepharmacy
Preveterinary Medicine

Teacher Education Curricula:
Biology
Chemistry
Deaf and Hard of Hearing Children
Elementary Education
English
French
Geography
German
Industrial Education
Mathematics
Mathematics and Physical Sciences
Mentally Handicapped Children
Music Education
Physics
Social Studies
Spanish
Speech

COMMERCE

ommon program for all Commerce Students
ommercial Teaching

Prejournalism
Prelaw

ENGINEERING

eronautical
gricultural
ramic
vil
ectrical
gineering Mechanics
gineering Physics
neral

Industrial
Mechanical
Metallurgical
Mining
Sanitary
Combined Liberal Arts-Engineering

chitectural Design
chitectural Construction

t Education
ts and Crafts
ustrial Design

History of Art
Advertising Design
Painting

PHYSICAL EDUCATION

ysical Education for Men
ysical Education for Women

Dance
Health Education
Recreation

Board of Trustees

UNIVERSITY OF ILLINOIS

Members Ex-Officio

OTTO KERNER, Governor of Illinois ..... Springfie
GEORGE T. WILKINS, Superintendent of Public Instruction ..... Springfie

Elected Members
Term 1957-1963

WAYNE A. JOHNSTON ..... 135 E. Eleventh Place, Chicago
EARL M. HUGHES ..... Hughes Farms, Route 1, Woodsto
TIMOTHY W. SWAIN ..... 912 Central National Bank Building, Peoria

Term 1959-1965

HOWARD W. CLEMENT ..... 38 S. Dearborn St., Chicago
RICHARD A. HAREWOOD ..... 733 E. 75th St., Chicago
HAROLD POGUE ..... 705 N. Oakland Ave., Decat

Term 1961-1967

IRVING DILLIARD ..... 505 E. Church St., Collinsv
MRS. FRANCES B. WATKINS ..... 5312 Cornell Ave., Chicago
KENNEY E. WILLIAMSON ..... Sixth Floor, Lehmann Building, Peoria

Officers of the Board

KENNEY E. WILLIAMSON, President ..... Peo
ANTHONY J. JANATA, Secretary ..... Urba
CLARENCE W. WELDON, Treasurer ..... Chica
HERBERT O. FARBER, Comptroller ..... Urba

Committee on the Chicago Departments

MRS. FRANCES B. WATKINS, Chairman, WAYNE A. JOHNSTON,
HAROLD POGUE

Administrative Officers

bana

AVID DODDS HENRY ..... President
HARLES WILSON SANFORD ..... Dean of Admissions

icago Undergraduate Division

RMAN A. PARKER ..... Vice President
ARLES C. CAVENY ..... Executive Dean
THUR D. PICKETT ..... Associate Dean of Administration
ROLD N. COOLEY ..... Assistant Dean
OBERT P. HACKETT ..... Associate Dean
Commerce and Business Administration
LLIAM J. DUNNE ..... Assistant Dean
Commerce and Business Administration
EDERICK W. TREZISE ..... Associate Dean
Engineering
PERT M. PRICE ..... Assistant Dean
Engineering
ROLD W. BAILEY ..... Associate Dean
Liberal Arts and Sciences
LLIS C. JACKMAN (On leave 1960-61) ..... Assistant Dean
Liberal Arts and Sciences
IS B. LITTLE ..... Assistant Dean
Liberal Arts and Sciences
N O. JONES ..... Associate Dean
Physical Education and Director of Athletics
RREN O. BROWN ..... Associate Dean of Students
Foreign Student Advisor and Veterans' Counselor
L CAHILL ..... Assistant Manager, Public Information
IEL L. CRUMPACKER, Major USA ..... Commandant, Army ROTC Unit
L C. GREENE ..... Director, Student Counseling Service
OLD J. HARTOCH ..... Director of Publications
ARD M. HEILIGER ..... Librarian
ERT E. PORTER ..... Assistant to the Business Manager
GORDON REID, M.D. ..... Director, Health Service
ES G. TANDBERG ..... Dean of Women
OLD E. TEMMER ..... Associate Dean of Admissions and Records
KER SMITH ..... Assistant Dean of Admissions and Records
J. VOTAVA ..... Personnel Officer
TON S. ZAHRT ..... Assistant to the Dean of Students
ERT L. ZANDER ..... Superintendent of Buildings and Grounds
eased March 23, 1961

Calendar

Chicago Undergraduate Division

First Semester (Fall 1961)

Sept. 5, Tues.-Sept. 13, Wed. ..... Orientation per
Sept. 14, Thurs.-Sept. 15, Fri. ..... Registrat
Sept. 18, Mon. ..... Instruction beg
Oct. 21, Sat. ..... Chicago Undergraduate Division opened 19
Nov. 22, Wed., 6 p.m. ..... Thanksgiving Vacation beg
Nov. 27, Mon., 8 a.m. ..... Thanksgiving Vacation e
Dec. 3, Sun. ..... Illinois Day (State admitted to the Union, 18
Dec. 15, Fri., 6 p.m. ..... Christmas Vacation beg
Jan. 2, Tues., 8 a.m. ..... Christmas Vacation e
Jan. 19, Fri.-Jan. 26, Fri. ..... Semester examinati

Second Semester (Spring 1962)

Feb. 1, Thurs.-Feb. 7, Wed. ..... Orientation pe
Feb. 8, Thurs.-Feb. 9, Fri. ..... Registrat
Feb. 12, Mon. ..... Instruction beg
Mar. 2, Fri. ..... University Day (University opened 1868; not a holid
April 19, Thurs., 6 p.m. ..... Easter Vacation beg
April 25, Wed., 8 a.m. ..... Easter Vacation e
May 11, Fri. ..... Honors
May 30, Wed. ..... Memorial Day (holid
May 31, Thurs.-June 7, Thurs. ..... Semester examinati

Summer Session 1962

June 22, Fri. ..... Registra
June 25, Mon. ..... Instruction be
July 4, Wed. ..... Independence Day (holid
Aug. 17, Fri. ..... Eight-Week Summer Session Examinat
Sept. 3, Mon. ..... Labor Day (holid
Sept. 7, Fri. ..... Twelve-Week Summer Session Examinat

Calendar

Urbana

First Semester (Fall 1961)

Sept. 5, Tues.-Sept. 8, Fri.	Entrance Examinations
Sept. 11, Mon.-Sept. 16, Sat.	Freshman Week and Registration
Sept. 18, Mon.	Instruction begins
Nov. 22, Wed., 1 p.m.	Thanksgiving Vacation begins
Nov. 27, Mon., 1 p.m.	Thanksgiving Vacation ends
Dec. 3, Sun.	Illinois Day (State admitted to the Union, 1818)
Dec. 20, Wed., 1 p.m.	Christmas Vacation begins
Jan. 3, Wed., 1 p.m.	Christmas Vacation ends
Jan. 17, Wed.	Study Day, classes dismissed
Jan. 18, Thurs.-Jan. 26, Fri.	Semester examinations

Second Semester (Spring 1962)

Jan. 30, Tues.-Feb. 2, Fri.	Entrance Examinations
Feb. 5, Mon.-Feb. 7, Wed.	Registration
Feb. 8, Thurs.	Instruction begins
March 2, Fri.	University Day (University opened, 1868)
April 14, Sat., 1 p.m.	Spring Vacation begins
April 23, Mon., 1 p.m.	Spring Vacation ends
May 4, Fri.	Honors Day (Classes dismissed at noon)
May 30, Wed.	Memorial Day (holiday)
May 30, Wed.	Study Day (Classes Dismissed)
May 31, Thurs.-June 8, Fri.	Semester Examinations
June 16, Sat.	Commencement Exercises

Summer Session 1962

June 5, Tues.-June 8, Fri.	Entrance Examinations
June 18, Mon.	Eight-Week Registration
June 19, Tues.	Instruction begins
June 23, Sat.	Twelve-Week Registration
June 25, Mon.	Instruction begins
July 4, Wed.	Independence Day (holiday)
July 10, Fri.-Aug. 11, Sat.	Eight-Week Summer Session Examinations
Sept. 3, Mon.	Labor Day (holiday)
Sept. 7, Thurs.-Sept. 8, Fri.	Twelve-Week Final Examinations

Faculty

CHICAGO UNDERGRADUATE DIVISION
1960-1961

PROFESSORS

Babler, Bernard J., Ph.D., Chemistry.
Bailey, Harold W., Ph.D., LL.D., Mathematics; Associate Dean o
Liberal Arts and Sciences.
Barber, Hollis W., Ph.D., Political Science.
Barton, Helen M., Ed.D., Physical Education for Women; Head of th
Department of Physical Education for Women.
Carlson, Clarence I., B.S., General Engineering; Head of Departmer
of General Engineering.
Caveny, Charles C., Executive Dean, Chicago Undergraduate Divisio
Cobb, Arnold C., M.S., Theoretical and Applied Mechanics.
Crum, Ferris B., Ph.D., Chemistry.
Cutshall, Alden D., Ph.D., Geography.
Derrick, Lucile, Ph.D., Economics.
Fox, Samuel, J.D., Ph.D., Accountancy.
Frank, Evelyn, Ph.D., Mathematics.
Gillett, Clarence H., Ph.D., Economics.
Goppert, Harold R., M.S., General Engineering.
Grampp, William D., Ph.D., Economics. (On leave, 1960-61.)
Greene, Paul C., Ph.D., Psychology; Director, Student Counselin
Service.
†Hackett, Robert P., Ph.D., Accountancy; Associate Dean of Co
merce and Business Administration.
Heiliger, Edward M., B.S. in L.S., M.A., Library Administration; I
barian.
Huitema, Roy, Ph.D., Chemistry.
Jones, John O., M.S., Physical Education for Men; Associate Dean
Physical Education; Director of Athletics.
Karpinski, Robert W., D. ès S., Geology.
Klassen, Peter P., Ph.D., Sociology.
Kozacka, Joseph S., M.S., Mechanical Engineering, *emeritus*.
Lipman, Eli A., Ph.D., Psychology.
McEldowney, Harold B., B.S., Architecture; Head of the Departme
of Architecture and Art.
McNeil, Edward B., Ph.D., Physics.

†Deceased, March 23, 1961.

Meloy, Carl R., Ph.D., Chemistry; Head of the Division of Physical Sciences.

Morris, Daniel J., Ph.D., Philosophy.

Nowlan, Frederic S., Ph.D., Mathematics, *emeritus*.

Pickett, Arthur D., Ph.D., Biological Sciences; Associate Dean of Administration.

Railsback, Ora L., Ph.D., Physics; Head of the Department of Physics.

Richardson, John F., M.A., Art.

Riddle, Donald W., Ph.D., History; Head of the Division of Social Sciences.

Rouffa, Albert S., Ph.D., Biological Sciences.

anchez, José, Ph.D., Foreign Languages.

angster, William, Ph.D., Biological Sciences; Acting Chairman of the Division of Biological Sciences.

chuyler, William M., Ph.D., Foreign Languages.

hompson, Wayne N., Ph.D., Speech.

rezise, Frederick W., C.E., M.S., Engineering; Associate Dean of Engineering.

ardaman, Hazel C., Ph.D., Foreign Languages.

est, Eugene B., Ph.D., English; Head of the Division of Humanities.

ASSOCIATE PROFESSORS

nderson, William R., M.S., Physics.

chrach, Joseph, Ph.D., Chemistry.

ll, Shirley A., Ph.D., History.

um, Irving D., Ph.D., English.

andler, Louis, Ph.D., Physics.

e, Edward H., C.E., Civil Engineering.

umpacker, Daniel L., B.S., Major, U.S.A., Military Science and Tactics.

rtis, Herbert J., Ph.D., Mathematics; Acting Head of the Division of Mathematics.

Filipps, Anthony J., B.S., Architecture.

nkines, Flora, Ph.D., Mathematics.

lls, Kenneth W., Ph.D., Psychology; Assistant Director, Test Services and Counselor, Student Counseling Service.

nstein, Irwin K., Ph.D., Mathematics Education. (On leave, 2nd semester 1960-61.)

ssman, Sidney F., Ph.D., Biological Sciences.

rtley, Miles C., Ph.D., Mathematics. (On leave, 1960-61.)

rtoch, Arnold J., Ph.D., Foreign Languages; Director of Publications.

Hunt, Charles K., Ph.D., Chemistry.

Johnson, Falk S., Ph.D., English.

Johnson, Herman J., M.S., Physics.

Jones, Stanley L., Ph.D., History.

Kabbes, S. Madonna, M.B.A., C.P.A., Accountancy.

Klehr, Harold, Ph.D., Psychology; Assistant Director, Counseling Ser
ices and Counselor, Student Counseling Service.

Kogan, Bernard R., Ph.D., English.

Kohler, Richard C., Ed.D., General Engineering.

Kostka, Helen M., M.D., Hygiene.

Lein, Marie E., Ph.D., Foreign Languages.

Madison, Kenneth M., Ph.D., Biological Sciences.

Mansfield, J. Victor, Ph.D., Chemistry.

McNee, John D., Jr., A.M., Art.

Mikolajczyk, Henry L., A.M., Architecture; Associate Architect.

Morgenthaler, George W., Ph.D., Mathematics; Head of the Divisi
of Mathematics. (On leave, 1960-61. Resigned, May 1, 1961.)

Nicholas, Constance, Ph.D., English.

Nicholson, Robert L., Ph.D., History.

Pennisi, Louis L., Ph.D., Mathematics.

Perkins, Roy B., M.S., Mechanical Engineering; Head of the Depa
ment of Engineering Shop Laboratories.

Pitt, Carl A., Ph.D., Speech.

Price, Rupert M., M.S., Physics; Assistant Dean of Engineering.

Radice, Canio, M.A., Art.

Rathbun, Rowland, M.S., Architecture.

Reid, H. Gordon, M.D., Hygiene; Director, Health Service.

Ricks, Victor E., Ph.D., Education; Teacher Education Advisor.

Schneider, Albert J., M.B.A., C.P.A., Accountancy.

Schrage, Samuel, Ph.D., Chemistry.

Schroeder, Roy W., Foundry and Pattern Design.

Shank, Max C., Ph.D., Biological Sciences; Chairman of the Division
Biological Sciences. (On leave, 1960-61.)

Shapiro, Samuel E., B.S., General Engineering.

Shaw, Fayette B., Ph.D., Economics.

Shopen, Kenneth, A.B., Art.

Skadeland, Harold M., M.A., Physics.

Unfer, Louis, Ph.D., History.

Walley, John E., Architecture.

Walraven, H. Dale, M.A., General Engineering.

Willner, Ernest S., Ph.D., Foreign Languages.

Wright, Elizabeth V., Ph.D., English.

ASSISTANT PROFESSORS

Andrews, Daniel K., Ph.D., Accountancy.
Armold, Jack D., Ph.D., Speech. (Resigned, May 1, 1961.)
Baer, Jean H., Ph.D., Education; Counselor, Student Counseling Service.
Ballard, Ruth M., Ph.D., Mathematics.
Beratan, Leon L., M.S., Theoretical and Applied Mechanics.
Berman, Louis A., Ph.D., Psychology; Counselor, Student Counseling Service.
Berrafato, Peter R., M.S., Physical Education for Men; Director of Intramural Sports.
Bess, Leon, Ph.D., Physics.
Blair, Leon N., B.S., General Engineering.
urch, Irenaes A., Ph.D., Psychology; Counselor, Student Counseling Service.
urr, Edward E., B.F.A., Art.
uss, Truman C., Jr., B.S. in Arch., General Engineering.
hambers, Robert M., B.S., Captain, U.S.A., Military Science and Tactics.
olby, Mary M., Ph.D., Geography.
orley, Robert E., Ph.D., Sociology.
embski, Marion V., M.A., General Engineering.
unne, William J., M.B.A., Economics; Assistant Dean of Commerce and Business Administration.
binger, Rebecca L., Ph.D., Chemistry. (On leave, 1960-61.)
nney, Mildred I., Ph.D., Geography.
ssinger, Edwin R., M. Mus., Music.
rdham, Sheldon L., M.S., Physical Education for Men; Track and Cross Country Coach.
ommherz, Carl J., A.B., B.S. in L.S., Library Administration; Catalog Librarian.
ller, John B., Ph.D., Foreign Languages, *emeritus.*
llagher, Robert E., Ph.D., English.
dvilas, Leo L., M.S., Physical Education for Men; Assistant to Director of Intramural Sports.
rstner, Robert W., Ph.D., Civil Engineering.
zel, Roland F., M.F.A., Art.
odman, Gordon L., Ph.D., History.
tlieb, Anatol, T.Sc. D., Chemistry.
f, William, Jr., M.A., General Engineering.
n, Wanda N., Ed.D., Social Sciences, *emerita.*
er, Gloria, M.D., Hygiene.
aday, Dee Mette, A.B., General Engineering.
ard, Allen H., Ph.D., Psychology.

Jackman, Willis C., M.A., English; Assistant Dean of Liberal Arts an Sciences. (On leave, 1960-61.)
Johnson, John C., Ph.D., English. (On leave, 2nd semester 1960-61.)
Jordan, Moreen C., Ph.D., English. (On leave, 2nd semester 1960-61
Karanikas, Alexander, Ph.D., English. (On leave, 1960-61.)
Kauf, Robert, Ph.D., Foreign Languages.
Klapperich, Alfred J., B.S., Electrical Engineering.
Klass, Rosalind A., Ph.D., Chemistry.
Knudson, Edward C., M.B.A., Economics.
Kristufek, Charles J., M.S., Physical Education for Men; Asssitant the Director of Athletics; Swimming and Tennis Coach.
Leonhard, Zelma B., Ph.D., English.
Lipkin, Lawrence, M.B.A., C.P.A., Accountancy.
Little, Ellis B., Ed.D., Biological Sciences; Assistant Dean of Liber Arts and Sciences.
Livermore, Ogden, M.A., Physics.
Love, W. Nell, Ph.D., English.
Madenberg, Fred, M.D., Hygiene.
Malinosky, Alfonse T., M.B.A., C.P.A., Accountancy.
Marsh, John O., Jr., Ph.D., Foreign Languages.
Masterton, Don A., M.S., Architecture.
Miller, Lester H., Jr., M.S., Physical Education for Men; Baseb Coach.
Miller, Sonia, Ph.D., English.
Minkler, Marcus W., M.S., Physics.
Montcalm, Benedict W., M.S., Physical Education for Men; Gymnast Coach.
Moraine, Fishel E., Dipl. Ing., Physics.
Mueller, Hans J., Ph.D., Chemistry.
Murphy, Kenneth H., M.S., Mathematics.
Newell, John T., Ph.D., Biological Sciences.
Nickle, Robert W., B.S., Art.
Pabarcius, Algis, M.S., Civil Engineering.
Pappademos, John N., M.A., Physics.
Pesavento, Wilma, M.A., Physical Education for Women.
Presley, Halina J., Ph.D., Biological Sciences.
Rakove, Milton L., Ph.D., Political Sciences.
Rapp, Marie A., A.B. in L.S., Library Administration; Circulation brarian.
Rayson, Glendon E., M.D., Hygiene.
Rheumer, George A., Ph.D., Geography.
Rietz, Edward G., Ph.D., Chemistry.
Robertson, Giles B., M.A., Library Administration; Reference Libr ian.

Royster, Richard S., M.A., General Engineering.
Runyan, Harry J., Ph.D., English.
Schiller, Andrew, Ph.D., English.
Schroeder, Fred W., M.S., General Engineering.
Schultheiss, Louis A., M.A., Library Information Systems Project Director.
etton, Henry A., B.S., General Engineering.
halibi, Madelaine T., Ph.D., Education.
homay, David, Ph.D., Biological Sciences.
ilkett, Albert F., A.B., Physics.
tableford, Nancy, M.F.A., Art.
teiner, John F., Ph.D., Chemistry.
tronks, James B., Ph.D., English.
eichmann, Elizabeth, Ph.D., Foreign Languages.
ersen, Walter G., Ed.M., Physical Education for Men; Football Coach.
eiss, Samuel A., Ph.D., English.
eissman, Herman B., Ph.D., Physics.
eldon, John W., Ph.D., Chemistry.
iesinger, Frederick P., A.E., Civil Engineering.
illett, Maurita F., Ph.D., English.
ccaria, Lucy C., Ph.D., Psychology; Counselor, Student Counseling Service.

INSTRUCTORS

elsperger, Robert J., M.S., Library Administration; Assistant Reference Librarian.
erti, Furio, M.S., Mathematics.
huler, Marjorie, M.S., Chemistry.
h, Walter B., Ph.D., Social Sciences.
vood, Norman R., M.A., English.
gston, Marjorie C., M.S. in L.S., Library Administration; Assistant Reference Librarian.
glund, Winifred V., M.A., Mathematics.
m, Alan F., M.A., Sociology.
d, James A., M.A., Biological Sciences.
c, Charles A., B.A., General Engineering.
nfeld, Johanna, M.A., Foreign Languages.
lario, Edward J., B.S., General Engineering.
onaro, Lynn M., M.S., Chemistry.
son, Kathryn Q., M.A., English.
ell, Robert L., M.A., English.
kovsky, Willis, M. Mus., Music.
lag, Joan M., M.A., English.

Claar, Catherine H., M.A., Biological Sciences.
Clampitt, Robert E., Sgt. First Class, U.S.A., Military Science an
Tactics.
Coleman, Harold M., Ph.D., Chemistry.
Cowin, John W., M.A., Chemistry.
Cox, F. Gaylord, M.A., English.
Crabb, Robert L., M.A., Economics.
Creaser, James W., M.A., Psychology; Counselor, Student Counseli
Service.
Crews, Janice M., A.M., Speech.
Culbertson, Don., M.A., Instructor in Library Administration; Assi
ant Serials and Acquisitions Librarian.
*Dafler, James R., B.A., Chemistry.
Davis, Russell E., M.A., English.
DeFotis, William, B.S., General Engineering.
DeGryse, Ruby V., M.A., Speech.
*Delfs, Harry J., M.S., Chemistry.
DeMar, Robert E., A.B., Geology.
Dembski, William J., M.S., Biological Sciences.
Dickett, Gust W., B.S., J.D., Economics.
Dodd, Lloyd E., M.A., English.
Engelbrecht, Lloyd C., M.S. in L.S., Library Administration; Fi
Arts Librarian.
Farag, Shafeek, M.A., Chemistry.
Ferrara, Salvatore V., M.A., Economics.
Flemer, Stevenson, M.A., Architecture.
*Friend, Beverly, M.A., English.
Friend, James, M.A., English.
Geldard, Winifred B., M.A., Economics.
*Gladish, Robert W., A.M., English.
Gordon, Louis I., M.S., Mathematics.
Goulson, Frances M., M.T.A., Speech.
Gray, Joseph L., M.A., Foreign Languages.
**Griest, Guinevere L., A.M., English.
Grove, Pearce Seymour, M.S., Library Administration; Acting Seri
and Acquisitions Librarian.
Harris, Eleanor K., A.M., English.
Haslett, Jared W., M.S., Physics.
Hedberg, Donald D., B.A., Chemistry.
Hedish, Norman D., M.A., Accountancy.

---

*First Semester Only.

**Second Semester Only.

Heftel, Daniel L., M.A., Psychology; Counselor, Student Counseling Service.

Hegie, Lucy S., M.A., English.

Henderleiter, William M., A.M., Mathematics.

Herzog, Elaine N. F., M.A., Chemistry.

Hill, Roger G., B.A., Mathematics.

Hoskins, Conde R., M.A., Speech.

Hough, Ingeborg V., M.A., Foreign Languages.

Hovde, Helen J., M.A., Speech.

Hunt, Richard H., B.A.E., Art.

ones, David R., M/Sgt., U.S.A., Military Science and Tactics.

ones, Joan M., Ph.D., Chemistry.

erwick, Marion S., M.A., English.

ester, Martha, A.B., M.S. in L.S., Library Administration; Assistant Catalog Librarian.

irstein, Laurette A., M.A., English; Counselor; Student Counseling Service.

undrat, Theodore V., M.A., Speech.

urs, Louis N., M.S., Geology.

urz, Donald A., M.A., General Engineering.

uzmanic, Betty J., M.Ed., Mathematics.

vsar, John E., M.D., Hygiene.

riviere, Rose, M.A., Mathematics.

rson, Carl M., M.B.A., Economics.

sher, Sim, M.S., Mathematics.

wson, Joan C., M.A., English.

rner, Isidor, M.A., Physics.

rner, Richard H., M.A., English.

jequist, J. L., B.S., Mechanical Engineering.

n, Julia B., M.S., Mathematics.

oman, Vivian C., M.A., Psychology.

mley, Jeanette S., M.A., Mathematics.

utton, William R., M.A., Foreign Languages.

ckin, John H., A.M., English.

ksud, Michael G., M.A., Physical Education for Men; Basketball Coach and Assistant Baseball Coach.

rten, Horace G., M.A., English, *emeritus*.

rtes, Robert A., M.S., Mathematics.

First Semester Only.

Miller, Irving M., M.A., English.
Miller, John F., Art.
Miller, Oscar, M.A., Economics.
Miller, Robert L., M.S., Chemistry; Counselor, Student Counseli
Service. (On leave, 1960-61.)
**Morgan, Ann D., A.M., Foreign Languages.
Mosillo, Francis A., B.S., General Engineering.
*Niederman, Sara C., M.A., English.
Nolan, Grace M., M.A., Mathematics.
Oleksy, Margaret H., M.A., English.
Olsen, Charles E., B.S., Mathematics.
Olson, Irving S., M.A., Foreign Languages.
Ondrak, Thomas B., M.S., Mathematics.
Page, Robert R., A.M., Philosophy.
Pancner, Robert, B.S., General Engineering.
Paré, Eileen, M.S., Chemistry.
*Patlogan, Sylvia, M.A., Foreign Languages.
Peck, James R., M.A., English.
Perelmuter, Samuel, M.S., Biology.
Perry, Clarence J., M.Ed., Chemistry.
*Pflaum, Clinton D., M.A., English.
Phillips, Anne, M.A., English.
Pinto, Leonard J., M.A., Sociology.
Potempa, Sylvester J., M.S., Chemistry.
Rader, Richard R., M.A., Physical Education for Men; Golf Coach.
Rees, Candida K., M.S., Mathematics.
†Rigler, Matthew L., M.A., Speech; Head of the Speech Improvem
Laboratory.
Rudin, Cecilia M., M.A., English.
*Rutherford, Robert E., A.M., English.
Sackheim, George I., M.S., Chemistry.
Sarkissian, John L., M.S., Biological Sciences.
Savoy, Michael G., M.S., Chemistry.
Schneemann, Carolee, M.F.A., Art.

---

*First Semester Only.

**Second Semester Only.

†Deceased, November 13, 1960.

Scholomiti, Nicholas C., A.M., Mathematics.
Scudder, Charles L., M.S., Biological Sciences.
Seabright, Frances K., M.S., Chemistry.
Sears, Helen W., M.A., Mathematics.
Seltzer, Arthur O., A.M., Economics.
Sidney, Mary C., A.M., English.
Siskind, Caroline C., M.F.A., English.
Sjoblom, Laurence R., B.S., Mathematics.
Skogen, Clara S., M.A., Foreign Languages.
Spies, Harold W., M.D., Hygiene.
Spirakis, Charles N., A.M., Biological Sciences.
Star, Morris, M.A., English.
Strnad, George J., M.A., Physical Education for Men; Assistant Football Coach; Wrestling Coach.
Timmis, Beatrice S., M.A., English.
Tort, Ferdina J., M.A., Foreign Languages.
Tyroler, Robert L., S.M., Psychology.
Vedral, Rose L., M.A., Mathematics.
Warren, Charles P., M.A., Anthropology.
White, Louise D., M.A., Foreign Languages.
Wilbur, James W., M.A., Physics.
Wiley, Rosemary F., A.M., Mathematics.
Wung, Poh-Shien, M.S., Physics.
Yasem, Milton, Ph.D., Chemistry.
Zmek, Leo F., M.S., Mathematics.
Zygmund, Irena, M.A., Mathematics.

ASSISTANTS

Badeff, Albert V., M.A., Economics.
Bazalone, Charlene B., B.S., Physical Education for Women.
Beplegate, Shelton P., M.S., Biological Sciences.
Bazani, Morris, Art.
Betha, Tamás I., B.S., Mathematics.
Bek, Robert J., B.S., Physical Education for Men; Assistant Gymnastics Coach and Assistant Football Coach.
Bger, Lois E., M.S., Biological Sciences.
Bmenthal, Jerome S., M.A., English.

Claypoole, Donna Jean, B.A., Physical Education for Women.

Descourouez, James C., B.S., Physical Education for Men; Trainer

**Elias, Basil C., B.S., J.D., Economics.

Gaines, Alan M., B.S., Physical Sciences.

Gritz, Norman J., B.A., Foreign Languages.

Hunt, Marianne, M.A., English.

Johnson, Robert E., B.A., Chemistry.

Lallas, Stanley P., M.A., Foreign Languages.

Lothian, Thomas A., B.S., Chemistry.

Lynn, Patricia, B.A., Physical Education for Women.

*McInerny, James F., B.S., Mathematics.

Nemoto, Harold H., B.S., Physical Education for Men; Assistant Foo ball Coach; Assistant Baseball Coach.

Nolan, Robert L., B.S., Physical Education for Men; Assistant Tra and Field Coach and Cross Country.

Nusinow, Richard, B.S., Mathematics. (Resigned November 11, 1960

Ossman, Edward T., B.S.C., Accountancy.

*Roth, Martin, M.A., English.

Rozen, Zelda, B.A., Physical Education for Women.

Russo, Thomas P., B.S., Physical Education for Men; Assistant Bask ball Coach.

*Sedlacek, George J., B.S., Physical Education for Men.

Smith, George H., M.A., Social Sciences.

Smith, William R., Jr., M.A., English.

Springer, Melvin J., Physical Education for Men; Soccer Coach; A sistant Track and Field Coach; Assistant Cross Country Coach.

*Stottlar, Carline B., A.M., English.

Taxey, Paul J., M.A., Biological Sciences.

Terrill, Robert E., M.A., English.

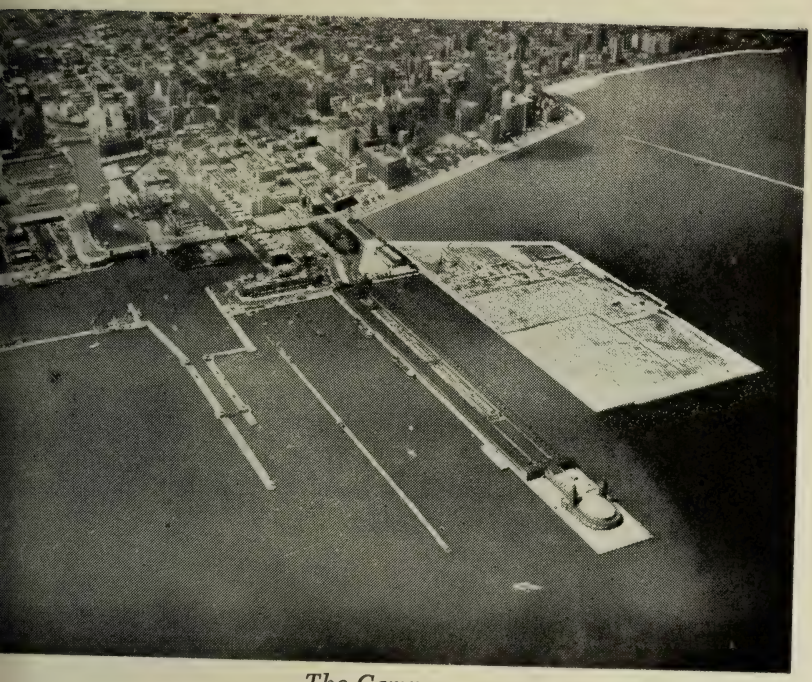
VISITING LECTURERS

Welch, Philip, M.A., Architecture.

---

*First Semester Only.

**Second Semester Only.



The Campus.

e Board of Trustees of the University of Illinois has selected as site of the new four-year, degree-granting Chicago campus of the versity of Illinois a plot of land bounded roughly by the Congress pressway, the South Expressway (Halsted Street), Roosevelt Road, Racine-Morgan-Blue Island (see map inside front cover). Plans for occupancy of the new facilities and admission of the first full or class in September, 1964, the admission of the first full senior s in September, 1965, and awarding of the first degrees in June, 6. The initial cost will be financed by revenues from the Univer- s Bond Issue of 1960. This location has also been approved by City Council of the City of Chicago, The Chicago Land Clear- Commission, and the Illinois State Housing Board.

Admissio

The following matters of interest to the prospective student are co
ered in this chapter: How to Enroll; Admission Requirements; Spec
Programs for Able Students; Special Information for Veterans; Tuiti
and Fees; Scholarship Information.

Section One: HOW TO ENROLL

THERE ARE NINE STEPS THE APPLICANT SHOULD TAI

First: SECURE AN APPLICATION FOR ADMISSION. The Off
of Admissions and Records of the Chicago Undergraduate Divis
will be glad to provide application blanks for admission in respo
to requests received by mail, by telephone, or in person. Stude
may apply either after graduation from high school or during th
final semester in high school. In the latter instance, admission will
based upon credit and grades earned during the first seven semest
in high school, scholastic rank in class at the end of the seve
semester, courses in progress the eighth semester and the proba
date of graduation, subject, of course, to confirmation after graduati
(For admission by examination in lieu of high school graduat
please see page 38.)

A friendly welcome to a prospective student.

Second: PROVIDE THE OFFICE OF ADMISSIONS AND RECORDS WITH AN OFFICIAL TRANSCRIPT of his record in high school and his record at each college or institution of higher education which he has attended since leaving high school. The applicant must arrange with the registrar of his high school and of each college or university he has attended to have a transcript of his record forwarded to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois, as soon as possible in order to permit early evaluation of his credentials.

In addition, an applicant who has been on active duty in the Armed Forces of the United States of America must also submit a photocopy of his service separation papers.

Third: ARRANGE FOR HIS SCORES ON THE *AMERICAN COLLEGE TEST* AND THE *STRONG VOCATIONAL INTEREST TEST* TO BE FORWARDED TO THE OFFICE OF ADMISSIONS AND RECORDS. Applicants who have not yet taken these examinations may secure information about where and when to take them from the Office of Admissions and Records. (For information about substitution of the *Scholastic Aptitude Test* of the College Entrance Examination Board see page 30.)

Fourth: DECIDE WHICH COLLEGE AND CURRICULUM IN THE UNIVERSITY HE DESIRES TO ENTER. The Chicago Undergraduate Division of the University, at scheduled times throughout the year, offers Vocational and Educational Aptitude Examinations which are followed by professional counseling. This counseling may assist a student who is uncertain as to which college or curriculum will best serve his needs.

These examinations and counseling interviews are offered several months in advance of each orientation period so that students may have ample time for thoughtful planning. Appointment requests for these examinations may be made through the Office of Admissions and Records. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

A new freshman who has not already taken these guidance examinations is required to complete them during the New Student Orientation Week, preceding the beginning of classes each semester.

Fifth: COMPLETE AND RETURN THE APPLICATION BLANK,

Sixth: WAIT FOR ADMISSION ACTION TO BE TAKEN. If additional records are needed (e.g., Academic Dean's recommendation Illinois residence clarification, etc.) the applicant will be notified by the Admissions Office. When his file is complete, that is, after his application blank and all necessary supporting records and transcripts have been received, the application will be processed. If his application is approved and vacancies still exist, the Admissions Office will send him a tuition and fee deposit request. In the fall semester the deposit request may be preceded by a notice from the Admissions Office of the applicant's priority group under the Progressive Admissions Plan (see page 36). The purpose of this deposit is to reserve a place in the entering class for the applicant. It is necessitated, of course, by an excess of applicants over capacity. (For more detailed information see page 49.)

If, for some reason, the admission application cannot be approved the Office of Admissions and Records will send the student a letter which will both explain why he is not eligible for admission and provide suggestions as to how he may remove his deficiencies and qualify for admission to a future session.

Seventh: PAY THE TUITION AND FEE DEPOSIT. When the tuition and fee deposit is paid, the Admissions Office will send the applicant a permit to enter. Enclosed with that permit will be:

A Copy of the New Student Week Official Program containing complete information about the activities of New Student Week, schedules for those activities, and for registration.

An Envelope Containing Detailed Instructions about the required medical examination, including provisions for its administration by the University Health Service or the student's own physician, at his option.

Eighth: REPORT TO THE CHICAGO UNDERGRADUATE DIVISION on the date specified in the *New Student Week Official Program* for orientation activities.

Ninth: REGISTER, pay the balance of tuition and fees, and start classes.

Section Two: ADMISSION REQUIREMENTS

ncluded in this section are the following: An outline of the admission equirements; definitions of terms used; a detailed statement of the cholastic requirements for admission (including the Progressive Admissions Plan); provisions for admission by examination; a statement f the basis for admission by special action; new admission requirements to become effective in 1963 and 1964.

AN OUTLINE OF ADMISSION REQUIREMENTS

he admission requirements for the University of Illinois are divided to two groups: General University Admission Requirements which pply to every student entering the University of Illinois; and Specific ollege Admission Requirements which vary, depending upon the llege and curriculum (within the University of Illinois) which the udent plans to enter and which apply only to students entering that llege and curriculum.

very student entering the University of Illinois must enroll in a rticular college and curriculum within the University. Therefore, *ACH STUDENT MUST MEET BOTH SETS OF ADMISSION EQUIREMENTS*, i.e., the General University Admission Requirements and the Specific College Admission Requirements for the college and curriculum of his choice.

ENERAL UNIVERSITY ADMISSION REQUIREMENTS: These quirements must be met by all applicants. (For definitions of the ms used and a description of the subjects acceptable in satisfaction the requirements, refer to page 31.)

aduation from an Accredited High School. (Students ranking scholtically in the fourth quarter of their high school class see page 34.)

e: Sixteen or older. This requirement may be waived for a student een years of age on recommendation of the Dean of the college ich the student plans to enter, provided the student will reside with parents or guardian or someone selected by them while attending University.

teen Units of acceptable secondary school work distributed as ows:

A minimum of nine units of work in the academic fields (English, foreign languages, history and social studies, mathematics, sciences), including:

A. At least three units of English (see page 31.)

B. An additional three-unit sequence and a two-unit sequence i different academic fields selected from the list of acceptabl majors (three units) and minors (two units) described o page 31. (This requirement is waived for an applicant wh ranks scholastically in the upper half of his high school grad uating class.)

2. Six units in any high school subjects accepted by an accredite school toward its diploma.

Scholastic Rank in the top three-quarters of the class on graduatio from high school or (for transfers from other accredited colleges an universities) a collegiate scholastic average of at least 3.0 (C) i terms of the University of Illinois grading system. Special informatio for students who rank in the lowest quarter of their class in hig school and more detailed information about the scholastic require ments for the admission of transfer students appear on pages 34 an 35.

Completion of the American College Testing Program Examinatio and the Strong Vocational Interest Test (effective with admission t the Fall Semester, 1962, and thereafter). The results of the Stron Vocational Interest Test will be used for counseling *only* and not a admission determinants. Applicants who have not completed the AC and Strong tests may be considered for provisional admission on th basis of the Scholastic Aptitude Test of the College Entrance Examin tion Board, subject to the receipt after registration of their ACT an Strong test scores.

SPECIFIC COLLEGE ADMISSION REQUIREMENTS:

Required Subjects: Please see table on page 33.

Special Additional Requirements for certain programs:

1. *Occupational Therapy*

   A. Age: Under thirty

   B. Ability to pass a special health examination given by th University Health Service.

   C. Favorable recommendation from the Director of Occupation Therapy. (The Office of the Director is located in Room W 425, Research and Educational Hospitals, 840 South Woo Street, Chicago 12, Illinois; telephone MOnroe 6-3900, e tension 2471.)

   D. Special scholastic requirements (see pages 37-38).

2. *Physical Education:* Admission to all programs offered in the College of Physical Education requires a recommendation from the Dean of that College (for men), or from the Director of the Women's Physical Education program. Arrangements for this required personal interview may be made by telephoning the Dean at WHitehall 4-3800, extension 162, or the Director at extension 72.

3. *Curricula Preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children:* For admission to each of these curricula (in addition to a special scholastic requirement, see pages 37-38) a recommendation from the Teacher Education Advisor is required.

DEFINITIONS

UNIT: A unit is the equivalent of two high school credits, i.e., the value given to a course of study covering two semesters and including not less than the equivalent of 120 sixty-minute periods of classroom work. Two hours of work requiring little or no preparation outside the classroom are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, geometry, physics, chemistry, or biology.

MAJOR: A major consists of a three-unit sequence in one academic field.

MINOR: A minor consists of a two-unit sequence in one academic field. The University's definition of a major and a minor may not be the same as that in use in your high school.

CCEPTABLE MAJORS AND MINORS: The required majors and inors (see pages 29-30) must be selected from the following:

nglish. All students must present a major in English. Only courses history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) d grammar, will count toward this major. Four units in English, hile not required for any curriculum, are recommended by all of e colleges.

Foreign Language. Three units in one language constitute a major Two units in one language constitute a minor. The University wil accept credit in any foreign language earned in an accredited high school. However, if language credit is earned, instead, by passing a University entrance examination that examination must be in a foreign language which is regularly taught by the University.

Mathematics. Only courses in algebra, plane geometry, solid geometry and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.)

In the College of Engineering and in the chemistry, chemical engineering, and physics curricula of the College of Liberal Arts and Sciences for which programs advanced high school mathematics is required, a student who has only one unit in algebra and one unit in geometry and who meets all other entrance requirements, may be admitted on condition that the deficiencies in advanced mathematics are removed during his first year of residence. This will probably extend the time required for a degree. A student who does not present the advanced mathematics specified may be admitted to full standing by passing at the University a mathematics proficiency examination to indicate that his preparation is adequate for entrance into analytic geometry

Science, including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: Physics, chemistry, botany, zoology. Biology may be offered in place of botany or zoology.

Social Studies. This field is divided into two subject areas:

1. History, e.g., United States, modern, ancient, medieval, etc. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.
2. General Social Studies, e.g., civics, economics, psychology, sociology, and economic geography.

Required Subjects for Specific Colleges and Curricula

IN ADDITION to the General University Admission Requirements, page 29

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION All Fields (Accountancy; Commerce and Law; Commercial Teaching; Economics of Government and Business, Public Utilities, and Transportation; Economic History; Economic Theory; Finance; General Economics; Industrial Administration; Insurance, Labor Economics; Management; Marketing; Personnel Management; Secretarial Training; Statistical Economics; Urban Land Economics.)	Algebra, 1 unit Geometry, 1 unit
COLLEGE OF ENGINEERING All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, Engineering Mechanics, Engineering Physics, General, Industrial, Mechanical, Metallurgical, Mining, Sanitary.) or combined Engineering-Liberal Arts curriculum, see under Liberal Arts.	Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Page 32) (See new changes on Page 41)
urricula in Architecture Construction Option (for B.S. degree in Architectural Engineering); Design Option (for B.S. Degree in Architecture)	Alegebra, 1½ units Geometry, 1 unit (See Page 32) (See new changes on Page 41)
urricula in Art (Advertising Design, Art Education, Arts and Crafts, History of Art, Industrial Design, Painting, Sculpture)	Language, 2 units[1] (See Page 32)
OLLEGE OF LIBERAL ARTS AND SCIENCES eneral Curriculum; Curricula preparatory to Dentistry, Medicine, Veterinary Medicine (see Also Paragraphs 1 & 2, Pages 37-38); Curricula preparatory to Journalism and Law; Occupational Therapy Curriculum (See Also Paragraphs 1 & 2, Pages 37-38, and Paragraph 1, Page 30); Prepharmacy and Home Economics; Prenursing (See Also Paragraphs 1 & 2, Pages 37-38); Teacher Education Curricula (except those listed below)	Language, 2 units[1] (See Page 32) Algebra, 1 unit Geometry, 1 unit
rriculum in Elementary Education	
cher Education, Industrial Education, Curricula preparatory o Teaching Mentally Handicapped Children and Deaf and lard of Hearing Children (See Also Paragraph 3, Page 31, nd Paragraphs 1 & 2, Pages 37-38) estry	Algebra, 1 unit Geometry, 1 unit
riculum in Chemistry	Language, 2 units[1] Algebra, 1½ units Geometry, 1 unit (See Page 32)
icula in Chemical Engineering, Combined Engineering-beral Arts, Physics (See Also Paragraph 1, Page 37)	Language, 2 units[1] Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Page 32)
LEGE OF PHYSICAL EDUCATION curricula (Physical Education for Men, Physical Education for omen, Dance, Health Education, Recreation)	Written approval of the Associate Dean of Physical Education

reign language requirement is waived for students who rank in the er half of their high school graduating classes. See page 42 for change his requirement effective September, 1964.

SCHOLASTIC ADMISSION REQUIREMENTS

SCHOLASTIC REQUIREMENTS WHICH APPLY TO ALL COLLEGES AND CURRICULA

For Non-Resident Students: Applicants who are not legal resident of the State of Illinois may be admitted (if vacancies exist after al qualified resident applicants have been accommodated) provided they meet all requirements listed in pages 29-33, and further provided that:

1. As new freshmen they rank scholastically in the upper half of thei class on graduation from high school, or
2. As transfer students with forty or fewer semester hours of credit they present a collegiate scholastic average of at least 3.0 (C) in terms of the University of Illinois grading system.
3. As transfer students with more than forty semester hours, they meet the special provisions in paragraph 1, B, page 35.

For Residents of Illinois who rank scholastically in the lowest quarter of their class on graduation from high school: A graduate of an accredited high school *who is a resident of Illinois* whose rank in scholarship is in the lowest quarter of his graduating class and who is otherwise qualified for admission will be admitted to the University upon presentation of *any one* of the following evidences of ability to do satisfactory work at the University:

1. A passing score on a test prescribed by the All-University Committee on Admissions. (This passing score is one which indicates that the student admitted to the University by this means has approximately one out of four chances or better of being in good scholastic standing at the end of his first semester of college work.) OR,
2. Evidence of having completed twelve or more semester hours of work at another college or university of recognized standing and having met the University requirements for admission as a transfer student. OR,
3. An application for admission to a session which begins at least twelve months after the applicant's graduation from high school provided that (a) in this twelve-month period he has not attempted as much as twelve semester hours of work at another college or University of recognized standing, and (b) that he meets all other University requirements for admission that are applicable to him, except that he shall not be required to take the test prescribed in "1" above.

The student's rank is to be based on work completed in grades nine, ten, eleven, and the first half of twelve in the case of four-year high schools; or on work completed in grades ten, eleven, and the first half of twelve in the case of three-year senior high schools. *Exceptions:* If a student who ranks above the lowest quarter prior to graduation from high school drops into the lowest quarter on graduation, his scholastic rank on graduation will govern. Similarly, if a student applies for admission after having been graduated from high school, his rank on graduation will govern. Attention is invited to a future upward revision of this requirement affecting students in the third quarter described on page 40.

For Transfers from Other Accredited Colleges and Universities: A person who has attended another college or university of recognized standing is considered for admission to the University of Illinois on presentation of a transcript of his record in each such college or university attended, and a transcript of his secondary school work. To be eligible for admission the student must meet the following requirements (in addition to all requirements listed on pages 29-33):

Scholastic Requirements:

A. Students who have completed (with passing or failing grades) forty or fewer semester hours of work in a recognized college or university must have a cumulative average of at least 3.0 (C) in terms of the University of Illinois grading system. (See "Grading System," page 69.)

B. Students who have completed (with passing or failing grades) more than forty semester hours of work in a recognized college or university must have:

1) A cumulative average of at least 3.0 (C) in *all* college work, in terms of the University of Illinois grading system, *plus*

2) An average of at least 3.0 (C) in the last term.

Conduct Requirements: Certification of honorable dismissal from each college or university attended.

Exceptions:

1. To the General University Requirements on page 29; An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the General University Admission requirements listed on page 29, may be admitted if he presents at least thirty semester hours of credit in transfer with at least a 3.0 (C) average. However, such applicants who desire to enter the College of Commerce and Business Administration, the College of Engineering, or the College of Liberal Arts and Sciences must present credit for the minimum mathematics required for these colleges.

B. To the scholastic requirements: Students who do not meet the scholastic requirements listed in paragraph 1, A and B, page 35 may petition for admission on scholastic probation provided they meet the following minimum requirements:

(1) Students with forty or fewer hours of college work: (This exception does NOT apply to non-residents of the State of Illinois or to applicants for the College of Engineering.) Less than a 3.0 (C) average but more than a 2.50 average.

(2) Students with more than forty semester hours of college work

a. Cumulative scholastic average of at least 3.0,

b. *But* less than a 3.0 average in the last term.

(Transfer students whose scholastic record is lower than that described in paragraph 3, B, are not eligible for admission.)

C. To the Conduct Requirement: A student on conduct probation at another accredited college or university or one who has been dropped from such an institution for disciplinary reasons may be considered for admission on petition to the Committee on Student Discipline of the Senate of the University of Illinois. Such petitions should be filed with the Office of Admissions and Records.

For All Persons Seeking Admission to the Fall Semester: The Progressive Admission Plan.—Because available facilities are insufficient to provide for all qualified applicants in the Fall Semester, admission priority is granted, on the basis of scholarship, for stipulated periods as described below.

1. *Period I: Through March 31, 1962*

A. New freshmen who are residents of Illinois and who rank in the top twenty-five percent of their high school classes.

B. New freshmen who are non-residents of Illinois and who rank in the top fifteen percent of their high school classes.

C. Transfer students who are residents of Illinois with not less than a 3.75 average in their college work in terms of the grading system of the University of Illinois.

D. Transfer students who are non-residents of Illinois with not less than a 4.0 average in their college work in terms of the grading system of the University of Illinois.

2. *Period II: From April 1 through April 30, 1962*

A. New freshmen who are residents of Illinois and who rank in the upper fifty percent of their high school classes.

B. New freshmen who are non-residents of Illinois and who rank in the top twenty-five percent of their high school classes.

C. Transfer students who are residents of Illinois with not less than a 3.50 average in their college work in terms of the grading system of the University of Illinois.

D. Transfer students who are non-residents of Illinois with not less than a 3.75 average in their college work in terms of the grading system of the University of Illinois.

3. *Period III: After April 30, 1962.* All applicants, new freshmen and transfers, who meet all requirements for admission to the University.

In determining the above priorities as they apply to new freshmen, simulated rank, based upon test scores, may be used in place of actual class rank (see page 38).

The University is now operating under the Progressive Admissions Plan only in the Fall Semester. However, operation under that Plan in the Spring Semester will be instituted if and when enrollment warrants.

SPECIAL SCHOLASTIC REQUIREMENTS WHICH APPLY ONLY TO CERTAIN COLLEGES OR CURRICULA:

College of Engineering: (Applies to the Professional Engineering curricula only) Transfer students must present a collegiate scholastic average of at least 3.0 (C). Transfer students with less than a 3.0 average will *not* be admitted.

College of Liberal Arts and Sciences: For admission to certain curricula in this college special scholastic requirements exist as described below:

For New Freshmen:

Curriculum	*Scholastic Requirement*
A. Occupational Therapy*, Physics, Predentistry, Premedicine, Prenursing, Preveterinary Medicine	Rank in Upper Half of high school class.
B. Curricula Preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children*	Rank in the Top Quarter of high school class.

See footnote on page 38.

2. For Transfers from Other Colleges: *Curriculum*	*Collegiate Average of No Less Than*
A. Occupational Therapy*, Prenursing	3.0 (C)
B. Predentistry, Premedicine, Preveterinary Medicine, Curricula Preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children*	3.5 (Midway between "C and "B")

PROVISIONS FOR ADMISSION BY EXAMINATION

Applicants who do not meet the requirements for admission (or th admission priorities) listed on pages 29 through 37 above, may qualif for admission or for a higher priority by examination as outline below. NOTE: This section does not apply to applicants who ar deficient in the scholastic requirements stipulated for transfer studen (paragraph 1, A, B, page 35). Poor college scholarship may NO be offset by examination—only by an improved scholastic record.

USE OF TEST SCORES IN LIEU OF RANK IN CLASS: Excep as noted below, whenever rank in class in high school is referred t above as a basis for admission or for establishing priority of admi sions, an applicant may offer evidence of scholastic ability in the for of test scores in lieu of rank in class. Acceptable test scores are thos earned in the American College Testing Program examinations, or c the College Entrance Examination Board Scholastic Aptitude Test.

Any student who submits scores attained through one of these tes ing programs which place him in a higher quarter than he would hav been placed by his high school rank shall have all of the benefi pertaining to this higher classification, including priority of admissio the waiver of requirements, and the admission to curricula in accor ance with his newly established status.

Exceptions: This provision for the use of test scores in lieu of hig school rank does NOT apply to students who rank in the lowe quarter of their class in high school or to nonresidents. Students ran ing in the lowest quarter of their high school class must meet th requirements described on page 34, and nonresidents must actual rank in the upper half of their class on graduation from high scho as specified on page 34.

---

* In addition to meeting the scholastic requirements, applicants f this curriculum must meet certain additional special requiremen See pages 30-31.

HIGH SCHOOL SUBJECT EXAMINATIONS: Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations in high school subjects as indicated under each category. These entrance examinations are given three times a year, usually in September, January and June. Applications to take these tests must be filed in advance in the Office of Admissions and Records. However, only those students who are applying for admission to this Division of the University are permitted to write these examinations.

Graduates of Unaccredited High Schools:

. Applicants who rank in the top twenty-five percent of their graduating class in an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

. Applicants who are graduates of unaccredited secondary schools and rank below the top twenty-five percent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and specific college admission requirements.

pplicants Who Have Attended an Accredited High School, but ho have not been graduated, may qualify by passing an entrance :amination in English composition and rhetoric and additional en- ance examinations for a total of *at least* four units of work in subjects be designated by the University.

pplicants Who Have Not Completed Any Secondary School Work ay qualify by passing University of Illinois entrance examinations in high school subjects necessary to meet general University and ecific college admission requirements.

pplicants Who Do Not Meet University Admission Requirements th respect to total units of credit, total academic units, majors and nors, or subjects required for admission to the college of the appli- nt's choice may qualify by passing University of Illinois entrance aminations in the subjects in which they are deficient.

ENERAL EDUCATIONAL DEVELOPMENT TESTS: Veterans active duty with the United States Armed Forces or with the ited States Maritime Service and nonveterans nineteen years of or older who do not meet admission requirements may qualify admission by passing the United States Armed Forces Institute neral Educational Development Tests (high school level) under following conditions:

Applicants Seeking Admission to the College of Liberal Arts and Sciences may qualify if their GED Tests scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school *and* if they present credit from accredited sources in one unit of elementary algebra and one unit of geometry. Applicants whose GED scores are passing but below the minimum required for upper half classification scholastically may qualify if they present high school credit from accredited sources in two successive years of an acceptable foreign language, in addition to the required mathematics credit.

Applicants Seeking Admission to the College of Commerce and Business Administration or the Professional Engineering and Applied Arts Curricula of the *College of Engineering* may qualify by passing the GED Tests and presenting credit from accredited sources in the required mathematics. Applicants for the Fine Arts Curricula in the *College of Engineering* may qualify as described above for the *College of Liberal Arts and Sciences,* except that for Fine Arts no mathematics is required.

Applicants Seeking Admission to the College of Physical Education may qualify by passing the GED Tests and securing the approval of the Dean of the College or the Director of the Women's Program as described on page 31.

A STATEMENT OF THE BASIS FOR ADMISSION BY SPECIAL ACTION

A student who is not eligible for admission on one of the plans described above may be admitted, with the approval of the Dean of Admissions and Records and the Dean of the College he wishes to enter, providing he submits evidence which clearly establishes his ability to do satisfactory work in the curriculum in which he wishes to enroll.

NEW ADMISSION REQUIREMENTS APPROVED FOR INSTITUTION IN 1963 AND 1964

REQUIREMENTS EFFECTIVE WITH ADMISSION TO THE FALL SEMESTER, 1963:

For Students in the Lower Half: The scholastic requirements described on page 34 for the admission of lowest quarter students will also apply to the admission of students graduated in the third quarter of their class (i.e., to all lower half students) in September, 1963.

For Admission to the Professional Engineering Curricula in the College of Engineering: All students admitted to these programs must present the following credit in addition to that listed in the chart on page 33:

1. *Social Studies.* Two units
2. *Science.* Two units (including only courses in physics, chemistry, and biology)
3. *Foreign Language.* Two units (two successive years of any acceptable foreign language—see page 32. Students who do not meet this requirement may be admitted with a deficiency in foreign language, but the *deficiency will have to be removed.* Credit in courses taken to remove the deficiency will not be counted toward the degree.

For Admission to the Applied Arts Curricula in the College of Engineering (Architecture and Architectural Engineering): The new requirements for these programs involve both an increase in the subjects required and the institution of a scholastic requirement as follows:

Required subjects: algebra, two units*; geometry, one unit; trigonometry, one-half unit*; science, two units* **; social studies, two units; foreign language, two units#.

Scholastic requirement: An entering freshman must rank in the upper half of his high school class if he is a resident of Illinois or in the top third of his high school class if he is a nonresident; a transfer student from another accredited college or university must have a scholastic average of at least 3.25 (three-fourths "C," one-fourth "B") in terms of the University of Illinois grading system.

*Students who have only one unit of algebra and one unit of geometry may be admitted on condition that the deficiency is removed during the *first year.* No credit toward graduation is allowed for mathematics courses taken to remove a deficiency in entrance requirements.

**One unit must be in physics or chemistry. The second unit of science may be in either a physical or a biological science. General science may NOT be used in satisfaction of this requirement.

#Languages acceptable in satisfaction of the foreign language requirement are those described on page 32, above. Students with a deficiency in foreign language may be admitted on condition that the deficiency is removed during the *first two years.* No credit toward graduation is allowed for language courses taken to remove a deficiency in entrance requirements.

NEW REQUIREMENTS EFFECTIVE WITH ADMISSION TO THE FALL SEMESTER, 1964: The foreign language requirement for admission to the programs in the College of Liberal Arts and Sciences and to the Fine Arts Programs in the College of Engineering will no longer be waived. All students entering these programs beginning with the Fall Semester, 1964, must present two units of credit in a foreign language, regardless of their scholastic rank in class or graduation from high school. EXCEPTION: Students graduated from high schools which do not offer a foreign language may be admitted without such language upon recommendation of the Dean of the College concerned.

Section Three: SPECIAL PROGRAMS FOR GIFTED STUDENTS

TALENTED STUDENT PROGRAM FOR HIGH SCHOOL SENIORS

WHO MAY PARTICIPATE: Talented seniors of Illinois secondary schools shall be permitted to enroll for courses at the University of Illinois.

RECOMMENDATIONS REQUIRED: Candidates for this program shall be recommended to the Dean of Admissions by the high school principal. The Dean of Admissions, the Head of the Department concerned, and the Dean of the College concerned shall determine whether or not the student is capable of taking certain courses for University credit. Such students shall receive University credit upon the satisfactory completion of these courses. They shall be given advanced placement when they register in the University. They shall, prior to admission to the University as full-time students, be graduated from high school and meet the other University requirements.

QUALIFICATIONS: The high school principal shall base his recommendations upon the merits of each individual case, taking into consideration the ability, grade point average, test results, and the available time of each individual so recommended.

COURSES: The courses taken by such talented seniors at the University shall be over and above the regular secondary school curriculum.

STUDY LOAD: The study load of each individual recommended for courses at the University of Illinois shall be determined by the local high school principal and the University.

OBJECTIVE: Normally, such courses taken at the University of Illinois should not be used to accelerate a secondary school student's program at the high school level, but as a means of broadening and enriching that program.

COST: Each student will be subject to tuition and fees for partial programs as outlined in the fee schedule on page 47.

ADVANCED PLACEMENT PROGRAM

GENERAL POLICY: The Advanced Placement Program, administered by the College Entrance Examination Board, is designed for able high school students who are about to enter college and who wish to demonstrate their readiness for courses more advanced than those most frequently studied in the freshman year. Advanced classes are offered in many high schools in one or more of the following subjects: French, Latin, German, Spanish, English literature and English composition, American history, European history, biology, chemistry, mathematics, and physics. There is a national examination in each subject, administered by the Educational Testing Service, designed to measure the competence of the student in terms of the point at which he should begin his college study in that subject. The University encourages capable high school students to participate in the program.

The examinations are prepared by joint national committees of high school and college teachers. They are graded by other national committees on the following basis: 5, high honors; 4, honors; 3, creditable; 2, pass; 1, fail.

CREDIT ALLOWED: The University of Illinois honors the advanced preparation defined, examined, and certified by the College Entrance Examination Board's Advanced Placement Program as follows:

Humanities

English Composition and Literature

a. Scores of 5 and 4 receive credit for Rhetoric 101 (3 semester hours), and may receive credit for Rhetoric 101 and 102 (6 semester hours), based on the judgment of a departmental committee.

b. Papers with scores of 3 or 2 are referred to the department and committee.

French

a. Scores of 5 or 4 receive credit for French 201 and 202 (6 semester hours).

b. Papers with scores of 3 are referred to the department.

c. Scores of 2 are not considered for advanced placement or credit.

3. Intermediate German
   a. Scores of 5 or 4 receive credit for German 101, 102, 103, and 104 (16 semester hours). However, any high school credit earned in German will be deducted from this total.
   b. Papers with scores of 3 are referred to the department.
4. Advanced German
   a. Scores of 5 or 4 receive credit for German 210 (3 semester hours).
   b. Papers with scores of 3 are referred to the department.
5. Latin 4
   a. Scores of 5 and 4 receive credit for Latin 105 (4 semester hours) and placement in Latin 201.
   b. Papers with scores of 3 or 2 are referred to the department.
6. Latin 5
   a. Scores of 5 and 4 receive credit for Latin 201 and 202 (semester hours) and placement in Latin 391.
   b. Papers with scores of 3 or 2 are referred to the department.
7. Spanish
   a. Scores of 5, 4, and 3 receive credit for Spanish 201 and 202 (semester hours).
   b. A score of 2 is not considered for advanced placement c credit.

Social Studies

1. American History
   a. Scores of 5 and 4 receive credit for History 151 and 152 (semester hours).
   b. Papers with scores of 3 or 2 are referred to the department
2. European History
   a. Scores of 5 and 4 receive credit for History 111 and 112 (semester hours).
   b. Papers with scores of 3 or 2 are referred to the department

Mathematics and Natural Sciences

1. Biology: Credit or advanced placement in biology is not allowe except on recommendation of the Division of Biological Scienc after careful evaluation of the applicant's examination paper.
2. Chemistry
   a. Scores of 5, 4, or 3 receive credit for the first semester of ge eral chemistry (5 semester hours) and are permitted to enroll the appropriate second semester course (Chemistry 104, 105, 10 108, or 132).
   b. Students who receive grades of 5 or 4 are advised to take proficiency examination in Chemistry 104, 105, or 106, dependi

upon the requirement of their curricula, to determine if additional credit is to be allowed.

c. All papers with a score of 2 are referred to the Chemistry Department for consideration.

3. Mathematics

a. Scores of 5, 4, and 3 receive credit for Mathematics 123 (5 semester hours) and Mathematics 133 (3 semester hours). In addition, students are given advanced placement in Mathematics 143.

b. For a score of 2, students are granted 5 semester hours of credit in Mathematics 123 and advanced placement in Mathematics 132 or 133. These students will, for a time, be covering material in calculus which is familiar to them, but during this period of time they will be expected to cover, on their own, any topics in analytical geometry which were not covered in their high school courses.

4. Physics: All papers will be referred to the department for consideration on an individual basis.

JAMES SCHOLARS

Designation as an Edmund J. James Scholar is available to an entering freshman of superior scholastic ability who was in the highest ten percent of his high school class. Designation as a James Scholar does not carry with it a monetary award, but candidates for the award who are in need of financial assistance are invited to apply for a University scholarship. The benefit to James Scholars is utilization of the University's facilities to provide education at a depth consistent with the student's superior scholastic ability; the challenge of maximum intellectual development; the stimulation of association with one's mental peers; these without eliminating the personal growth and development which should be a part of college life. Information about this program and applications may be secured from the Chairman of the Honors Council, Room 90, Chicago Undergraduate Division, University of Illinois, Navy Pier, Chicago 11, Illinois.

Section Four: SPECIAL INFORMATION FOR VETERANS

The Chicago Undergraduate Division has been approved to offer training under Public Law 894 (Vocational Rehabilitation), Public Law 550 (Korean GI Bill) and Public Law 634 (Benefits for Children of Deceased Veterans). Questions concerning benefits under these laws may be referred to the Veterans Section, Office of Admissions and Records.

CREDIT FOR MILITARY SERVICE

The University, under general provisions administered by the All-University Committee on Admissions, recognizes for college credit certain training and experience in the Armed Forces. The completion of military service in the Air Force, Army, Marine Corps or Navy of the United States, including basic or recruit training of six months or more is accepted in lieu of the general University requirements of four semester hours of credit in Military Science and four semester hours of credit in Physical Education. Credit for work taken in college training programs, in technical schools, and in other courses pursued while the veteran was in service may be transferred upon the basis of evaluation by the Office of Admissions and Records. No credit is allowed on college level General Educational Development Tests.

MILITARY SCHOLARSHIP

Any person who served in the Armed Forces during World War I or any person who served in the Armed Forces at any time after September 16, 1940, and received an honorable discharge may qualify for a four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time he entered service. No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and Records, Room 15, Window E. The Illinois Military Scholarship may not be used during any period when the veteran is receiving financial aid for his education from the United States Government.

SELECTIVE SERVICE DEFERMENT

The Office of Admissions and Records will supply the required certificates for students who wish to apply for educational deferment under the regulations of the Selective Service System. Information concerning educational deferments is available at Room 15, Window E.

Section Five: TUITION AND FEES

GENERAL STATEMENT

Tuition and fees are due and payable in full when the student registers for classes at the close of New Student Week. The amount of tuition and fees assessed varies depending on the session in which the student registers and on the study load (number of credit hours) he carries. In addition, tuition (but *not* the special fees) varies, depending on whether or not the student is a legal resident of Illinois. Students entering the University for the first time are asked to make two special deposits: *First,* a tuition and fee deposit to assure reservation of space in the entering class; and *second,* a general deposit. More detailed information about these deposits and about the special fees appears immediately following the table of tuition and fees.

TABLE OF TUITION AND FEES

REGULAR SEMESTER (SIXTEEN WEEK SESSION):

For Full Programs (more than 8 Semester Hours)

	Illinois Resident	Nonresident
Tuition	$85.00	$260.00
Laboratory, Library and Supply Fee	12.00	12.00
Hospital-Medical-Surgical Insurance	8.00	8.00
Activities Service Fee	10.00	10.00
Illini Union Fee	5.00	5.00
Total	$120.00	$295.00

or Partial Programs

	4½ to 8 Sem. Hrs.		½ to 4 Sem. Hrs.	
	Ill. Res.	Nonres.	Ill. Res.	Nonres.
uition	$50.00	$150.00	$30.00	$80.00
aboratory, Library and Supply Fee	12.00	12.00	6.00	6.00
ospital-Medical-Surgical Insurance	8.00	8.00	8.00	8.00
ctivities Service Fee	10.00	10.00	5.00	5.00
ini Union Fee	5.00	5.00	3.00	3.00
otal	$85.00	$185.00	$52.00	$102.00

TWELVE-WEEK SUMMER SESSION

For Full Programs (More than 6 Semester Hours)

	Illinois Resident	Nonresident
Tuition	$65.00	$195.00
Laboratory, Library and Supply Fee	9.00	9.00
Hospital-Medical-Surgical Insurance	6.00	6.00
Activities Service Fee	8.00	8.00
Illini Union Fee	4.00	4.00
Total	$92.00	$222.00

For Partial Programs

	3½ to 6 Sem. Hrs.		½ to 3 Sem. Hrs.	
	Ill. Res.	Nonres.	Ill. Res.	Nonres.
Tuition	$40.00	$110.00	$25.00	$65.00
Laboratory, Library and Supply Fee	9.00	9.00	5.00	5.00
Hospital-Medical-Surgical Insurance	6.00	6.00	6.00	6.00
Activities Service Fee	8.00	8.00	4.00	4.00
Illini Union Fee	4.00	4.00	2.00	2.00
Total	$67.00	$137.00	$42.00	$82.00

EIGHT-WEEK SUMMER SESSION

For Full Programs (More than 4 Semester Hours)

	Illinois Resident	Nonresident
Tuition	$45.00	$130.00
Laboratory, Library and Supply Fee	6.00	6.00
Hospital-Medical-Surgical Insurance	4.00	4.00
Activities Service Fee	5.00	5.00
Illini Union Fee	3.00	3.00
Total	$63.00	$148.00

For Partial Programs

	2½ to 4 Sem. Hrs.		½ to 2 Sem. Hrs.	
	Ill. Res.	Nonres.	Ill. Res.	Nonres.
Tuition	$30.00	$80.00	$20.00	$45.00
Laboratory, Library and Supply Fee	6.00	6.00	3.00	3.00
Hospital-Medical-Surgical Insurance	4.00	4.00	4.00	4.00
Activities Service Fee	5.00	5.00	3.00	3.00
Illini Union Fee	3.00	3.00	2.00	2.00
Total	$48.00	$98.00	$32.00	$57.00

The Tuition and Fee Deposit: This deposit is $30.00 and must be paid by each new undergraduate student (except foreign students who, at the time of application, are residing outside the United States) prior to receipt of a permit to enter. This is not an additional cost for attending the University, but is applied to the student's tuition and fees for the semester to which he is admitted. The deposit **should not be sent until requested by the University.** It is nonrefundable except in very special cases; for example: it will be refunded after registration to students holding scholarships covering *both* tuition and fees.

The General Deposit: This deposit is $5.00 and is paid by each student at the time of his first registration at the Chicago Undergraduate Division. Chargeable against this deposit are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory equipment, etc. Whenever the amount of the $5.00 deposit falls below $2.50, the student is required by additional deposit to bring the total up to $5.00. Any balance in the deposit is returned to the student if he officially withdraws from the University. This refund is made after the close of registration for the next semester following the student's withdrawal.

Laboratory, Library and Supply Fee: All undergraduate students attending the University, including those not currently enrolled in a laboratory course, pay this fee.

Hospital-Medical-Surgical Insurance Fee: This fee is assessed all students. However, those who register for 4 or fewer semester hours of credit may apply for exemption from this fee. In addition, a student who presents evidence of participation in a group insurance system providing benefits equivalent to those covered by the University fee

may petition through the Office of the Dean of Students, during the first ten days of instruction (first five days in the summer session), for a refund of this fee. Refunds are not given on *any* other basis, even withdrawal from the University, although in this instance the student who withdraws remains insured for the balance of the semester.

Activities Service Fee: This fee is used to finance the Student Activities Program. It is paid by all students attending the Undergraduate Division and entitles them to attend all Undergraduate Division plays, concerts, cinema series, forum series and varsity games admission free.

Illini Union Fee: This fee will be used to defray the cost of equipment for the new Chicago Undergraduate Illini Union and to provide operating expenses. The Union will serve the Undergraduate Division as a student center in which most of the space will be devoted to lounge and study areas—much needed facilities for a commuter campus. Other space will be devoted to music and television lounges, individual meeting rooms for student organizations, a games room, and area for student mixers and student-faculty gatherings, and a typing room. Space will also be provided for this Division's Art Gallery. The north wall will be of glass, to provide a wide view of the lake.

The development of an Illini Union on the present Navy Pier campus will provide the nucleus of a program which easily can be expanded for the proposed Illini Union on the Undergraduate Division's new campus, while at the same time providing a valuable service for the more than 15,000 new students who will attend Navy Pier in the next three years. A Union director will operate the program on the Navy Pier campus and help plan the permanent facility for the new campus, which is to provide a very broad program of social, cultural and physical recreation in addition to the activities normally provided by a Union. The equipment installed in the Navy Pier Illini Union will be moved to the Union on the new campus when it opens.

MISCELLANEOUS FEES

IDENTIFICATION CARD: Each student, on payment of tuition and fees each semester, receives an identification card for use in obtaining library books, locks, towels, and other equipment. A fifty cent fee is charged for the replacement of lost or destroyed identification cards.

SERVICE CHARGE FOR DEFERRED FEES: Arrangements for deferred fees are made directly with the cashier. A service charge of ten per cent of the amount of fees deferred, but not to exceed $3 semester, is assessed for the privilege of deferring fees, and the

charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded, *except* that a minimum service charge of $1 is retained by the University in all cases. The general deposit of $5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.

CHANGE FEE: For every change of program slip issued at the request of the student, the fee is.....$1.00

TRANSCRIPT FEE: Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record. For each additional transcript the fee is.....$1.00

LATE REGISTRATION FEE: Former students who register after the regular registration days in either semester pay a late registration fee of.....$5.00

SPECIAL EXAMINATION FEE: For any special examination given in a course which has been failed, the fee is.....$10.00

FEE TO VISIT COURSES: Persons not connected with the University who attend the classes as visitors pay for each course..$10.00

Persons visiting courses who withdraw within ten days after paying their fees may receive a full rebate of the visitor's fee. No rebate is allowed after this date.

Visitors may never write examinations for credit in courses they have visited, nor may they visit laboratory courses.

MILITARY DEPOSIT.....$10.00

Each student receiving military equipment must make this deposit at the time of issuance. The deposit is returned to the student upon the return of the military equipment at the end of each school year.

REFUNDS OF TUITION AND FEES

In case a student withdraws from the University during the first ten days of instruction, the total amount of the tuition and fees he paid (except the Medical Insurance Fee) will be refunded. After ten days and before the middle of the semester, a rebate of one-half the tuition and fees will be made. After the middle of the semester, no rebate will be allowed.

In the Eight-Week summer term, the total amount of the tuition and fees paid (except the Medical Insurance Fee) will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week.

In the twelve-week summer term, the total amount of the tuition and fees paid (except the Medical Insurance Fee) will be refunded if withdrawal occurs within the first seven days; one-half the amount after the first seven days but within the first six weeks; and nothing after the beginning of the seventh week.

If the student withdraws from one or more courses, thereby reducing his study load to eight or less semester hours in the regular semester, four or less hours in the eight-week summer session, or six or less hours in the twelve-week summer session, a pro rata refund of tuition and fees will be made provided that such a reduction of study load occurs during the first ten days of instruction in the regular semester, the first five days of instruction in the eight-week summer session, or the first seven days of instruction in the twelve-week summer session.

For refund of the deposits, see page 49. For refund of the Hospital-Medical-Surgical Insurance Fee, see note on page 49.

Section Six: WITHDRAWAL AND TRANSFER

WITHDRAWAL FROM THE UNIVERSITY

Students leaving the University before the end of a semester o session must obtain withdrawal papers at the office of the Dean o their college. Failure to do so will result in the student being droppe for poor scholarship at the end of the semester. Students who withdra within the last three weeks of instruction in the regular semeste within the last nine days of instruction in the twelve-week summe session, or the last seven days of instruction in the eight-week summe session are required to petition for readmission.

TRANSFER TO URBANA

Students at this Division who intend to transfer to Urbana may do s by securing a release form from the Dean of their college on this cam pus. This release form is then taken to the Recorder, Room 15. *Not* Architecture and Architectural Engineering students may transfer t Urbana only when they have reached the point in their curriculum a which they can no longer obtain a full program of studies on this cam pus. (Normally this is after completion of the first five semesters of th curriculum.) All male students under twenty-two years of ag transferring to Urbana before completing sixty semester hours college credit are required to earn four semesters of credit in Militar

Science unless specifically exempted, or unless they have prior to transfer earned such credit through the voluntary ROTC program on this campus. See page 106.

Section Seven: SCHOLARSHIPS

College scholarships at the University of Illinois as elsewhere are limited in number and are awarded to the best qualified applicants. While each scholarship may specify certain restrictions, nearly all of them involve the following considerations: (1) a good record as a student, and (2) evidence of financial need. In this connection, the applicant is usually required to furnish information concerning his own financial status *and* that of his parents or guardian.

APPLICATION FOR SCHOLARSHIPS

Most scholarships are awarded on an annual basis in late spring or early summer for the following school year. Applications for fall semester awards should be made as soon as possible after January 1. For the limited number of awards granted for the spring semester, applications are accepted after October 1. Students currently enrolled in the University of Illinois may file an application at any time their scholastic averages are 3.75 or higher.

KINDS OF SCHOLARSHIPS

Several types of scholarships are available. With the exception of the Military Scholarships, most awards are based upon both need and academic accomplishment. See page 46.

University Scholarships. Since the University of Illinois is a state supported institution, most of its scholarships are restricted to Illinois residents. Even so, the University does have some funds that can be used for out-of-state scholarships.

Some grants are made in cash, while others simply exempt the recipient from the payment of tuition and/or certain other fees. Nearly all scholarships are granted on an annual basis and many are subject to renewal provided the student maintains the required scholastic average.

Entering freshmen applying for these scholarships must rank in the top quarter of their high school class and be in need of financial assistance. Students already enrolled in college must have an average of 3.75 ("B" minus) or better in college-level courses.

Work Scholarships for Superior Students. The Committee on Undergraduate Scholarships, under authority from the Board of Trustees, selects worthy entering freshmen each year for the Work Scholarship Program.

This program is designed to aid superior students who need substantial financial assistance. Those selected receive tuition waiver scholarships and employment by the University to enable them to earn all or a substantial amount of the cost of meals.

These scholarships are renewed from year to year if the holders maintain superior records and give satisfaction in their jobs.

Military Scholarships. Honorably discharged Illinois veterans who are not enrolled under the "G.I. Bill" may be eligible for tuition scholarships, but must make formal application for them. (See page 46.)

County Scholarship Examination. On the basis of a competitive examination, held the last Saturday in March, a number of scholarships are awarded in each county each year. Three of these scholarships in each county are available only to children of veterans, and preference is given to candidates whose fathers are deceased or disabled. At least twenty days before the examination date (the last Saturday in March—in a few cases Friday), candidates completing their high school education and interested in the program should notify the County Superintendent of Schools in writing of their intention to take the examination.

General Assembly Scholarships. Each Senator and Representative in the Illinois General Assembly may nominate one student a year from his district for a four-year tuition scholarship at the University of Illinois. Original nominations must be made before the beginning of the school semester. Appointments also may be made to fill vacancies of unused portions of General Assembly Scholarships.

Other Scholarships. Many business and industrial firms, civic groups, service and religious organizations grant scholarships. These awards vary in value and often relate to the service the individual has given or may be expected to give to the donor group.

For further information about scholarships, contact the Dean of Students or the Dean of Women (Room 313). Application blanks are obtainable from and should be filed with the Office of Admissions and Records, Room 15, Window E.

University Services

The University's interest in the individual student extends beyond the classroom to include the personal adjustment of each student to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling; extracurricular activities, both social and cultural; and advice and instruction in healthful living.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division. Before registration, the student is encouraged to avail himself of the services of the Dean of Admissions, the Dean of Students, the Dean of Women, the Student Counseling Service, and the dean of his college for information and advice needed to insure wise planning for his college career.

At registration time, an advisor helps the student select and arrange his courses, and special meetings afford him the opportunity to meet the deans. The deans of the various colleges, the heads of departments and all members of the faculty devote a large part of their time to advising students concerning their classroom work and programs. Students are urged to discuss special educational problems with their instructors, who hold scheduled office hours for conferences with individual students. The areas of concern relating to student welfare outside the classroom are handled chiefly by the Dean of Admissions, the Dean of Students, the Dean of Women, and the Student Counseling Service.

OFFICE OF THE DEAN OF STUDENTS

The Dean of Students is in charge of most matters of student welfare and extracurricular activities. As part of his organization, the Dean of Men, the Dean of Women, and their assistants are general advisors to whom students may turn for assistance and advice. These advisors help with personal problems, part-time employment, loan funds and scholarships, extracurricular activities, clubs and organizations, health insurance, budgeting expenses, housing, special regulations concerning foreign students, planning and organizing special events and all-University functions, interpretation of University regulations and many other matters. Besides being available for daily counseling, the staff members advise student honor groups, serve on many committees, and assist professional groups. The offices of these advisors are open throughout the day to any student for individual conferences, as well as for inquiries from parents and guardians.

LOANS

Loans to worthy students are playing an increasingly important part in the financing of the costs of college education. Several attractive plans are in operation at the University of Illinois.

FEDERAL LOANS

The National Defense Education Act of 1958 makes available substantial federal funds for loans to superior students. The maximum amount is determined by the need of the student, and may not exceed $1000 per year, to a total of $5000. Special consideration is given students who express a desire to teach in elementary or secondary schools. Preference is also given those whose academic background indicates a superior capacity or preparation in science mathematics, engineering, or a modern foreign language. To be eligible at this University, a new freshman must rank in the upper quarter of his high school graduating class, while a transfer student must have a college average of 3.75 (B—) or above on the Illinois five point system. Students currently enrolled in the University of Illinois and progressing satisfactorily toward a degree may be eligible.

UNIVERSITY LOANS

The University of Illinois offers several types of loans to students. Both long and short term loans are available.

Long-term University Loans. Usually these loans are available to students who have completed a semester or more at the University with a satisfactory record. For any one student the maximum amount of loan that may be outstanding at one time is $2500.

Short-term University Loans. These emergency loans may be requested by new students as well as by those who have been on campus a year or more. Loan amounts range from $5.00 to $100.00, and must be repaid by the end of the semester in which the loan is granted.

Emergency Aid. Any worthy student in immediate need because of an emergency may apply for aid in any amount from $0.25 to $5.00. Repayment is arranged between the borrower and the Dean of Students.

Application blanks and detailed information regarding loan funds may be obtained from the Dean of Students or the Dean of Women (Room 313).

EMPLOYMENT

Considerably more than half the students at the Undergraduate Division earn a part of their college expenses, and some are entirely self-supporting. Worthy students who need to work part time will find a variety of opportunities available; while this office cannot guarantee a job, a sincere effort is made to place all deserving students. Job opportunities both on and off campus are listed with and handled by the Student Employment Office. Earnings range from $1.05 to $2.65 per hour depending on qualifications and experience required.

Application forms and detailed information may be obtained from the Student Employment Manager in the Office of the Dean of Students (Room 313). Usually job referrals are made only after the student has registered for academic courses, but a new student who has been admitted and has a registration permit may file an application for employment.

HOSPITAL-MEDICAL-SURGICAL INSURANCE

The University of Illinois requires all students to have accident and health insurance. Students taking five semester hours or less (3 hours or less in the summer) will be entitled to a refund of this fee at their request merely on the basis of their limited enrollment. A married student may elect to take this coverage for himself (herself) and, if desired, for his (her) eligible dependents, including spouse and unmarried children under nineteen years of age. Application must be made to the Cashier's Office within two weeks after registration each semester. The student policy at the Chicago Undergraduate Division provides extensive benefits that compare with the best policies of this type, and at a very low cost. Summer insurance is available to students not in attendance in summer session; however, it must be the intention of the student to enroll at some division of this University for the fall semester of the next academic year. The summer fee must be paid to the Cashier between May 15 and June 29, 1962. For further information, telephone WH 4-3800, extension 103 or 104.

STUDENT COUNSELING SERVICE

The services of counseling and clinical psychologists are available to students at the Student Counseling Service. Psychological testing and counseling services are available to help students make more effective use of their intellectual and personality resources. Appointments for interviews are made by the departmental receptionist.

Students bring a variety of problems and concerns for consideration with the aid of their counselors: planning their vocational future, improving their reading and study skills, learning to cope with personal or family problems, promoting their development as persons, and establishing better relations with others.

The following paragraphs describe specific programs of the Student Counseling Service.

A. *Pre-Entry Counseling and Testing.* A program of Freshman Guidance testing and individual counseling for all graduating high school seniors who are considering attendance at the Chicago Undergraduate Division. The program is intended primarily for students who are not yet sure whether they should enroll at this campus, or who would like to feel more sure what program of studies to follow, or who would like to check their thinking on how to get a good start in college.

The Freshman Guidance Examinations provide an estimate of the student's high school background in mathematics, science, and social studies; measure skill in vocabulary, English usage, and reading; assess aptitude or talent for college studies; and attempt to identify areas of academic interest.

The test results are evaluated in an individual interview with a counselor, who will help the student use test information as one basis for making his own decisions about the wisdom of attempting college work or the kind of college work which he should undertake.

Students may register for this counseling-testing program during the last half of the senior year in high school, or during the summer after graduation, by writing or telephoning the Office of Admissions and Records at the Chicago Undergraduate Division, WH 4-3800, Ext. 214.

B. *Individual Educational Counseling.* Before or during Orientation Week each entering freshman completes a battery of tests. Review of his test scores with a counselor may help the student toward a more realistic self-judgment of his academic strengths, handicaps, and goals. Early recognition of deficiencies or of special talents may direct the student's efforts toward needed remedial work, or toward fuller use of his specal abilities. A student may be concerned about how well his abilities and interests match the particular curriculum in which he is enrolled, or he may inquire into his fitness for some other program of studies. Counselors also make available information about other colleges and universities, or about special training programs and professional schools.

C. *Reading Improvement Groups.* A Reading Clinic is maintained for students wanting to increase their rate of reading or improve their vocabulary and comprehension skills. The Reading Clinic offers programs for the better-than-average student who wishes to read faster and more effectively, as well as for the student in need of remedial training.

Pre-tests are administered, and reading instruction is based on individual needs as indicated by test results. Periodic retests are given to measure progress, and work is terminated when the student has achieved his own goals.

D. *Academic Achievement Groups.* "How to Study" groups which focus on helping students learn more effective approaches to their academic work. This is done through group discussion, demonstration of sound techniques, and laboratory practice. The program includes attention to such techniques as analyzing and evaluating reading selections, improving concentration and memory, developing expanded vocabulary, outlining and notetaking, and preparing for examinations.

To meet the particular concerns of entering freshman, special sections are offered which aim to help them clarify their new roles as commuter students in an urban University, academic adjustment, growth in personal adequacy, and development in social relationships.

E. *Individual Vocational Counseling.* This service is offered students who have not yet formulated a decision concerning their future work, or who are considering a change in plans. The counselor seeks to help the student clarify his own vocational goals and the factors in his personal situation which need to be considered in choosing a vocation. Available guidance test scores are appraised, and additional tests may be assigned to meet the special needs of the student. In addition to test interpretation, the counselor can assist students in securing information about vocational trends and about educational and training requirements for various occupations.

F. *Career Planning Groups.* Voluntary study groups for students who want to clarify their vocational goals. Discussions and individual testing focus on self-evaluation of abilities, interests, and personal needs as bearing on occupational choice.

G. *Counseling Groups for Foreign Students.* Opportunity for foreign students to discuss in groups problems of mutual concern which are presented by their need to find a place in the intellectual and social life of the University and their host country.

H. *Personal Counseling.* Clinically trained psychologists assist students in the solution of personal and emotional problems. Students who wish such help may make an appointment for personal counseling. The staff recognizes and protects the confidential nature of the counseling interview.

THE SPEECH IMPROVEMENT LABORATORY

The services of the Speech Improvement Laboratory are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who have foreign accents, hearing deficiencies, or vocal, rhythmic, or articulatory problems are aided by the Laboratory, which also assists students with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical, teaching, or speech careers are aided in meeting professional speech requirements. There are no fees for these services, but some students may be asked to purchase a blank recording disk in order that permanent recordings of their voices may be made. The Speech Improvement Laboratory is located in the Student Counseling Service area on the third floor. It is advisable to make appointments in advance.

UNIVERSITY LIBRARY

The University Library provides all the books, related materials, and professional services that meet the needs of students and faculty for information, research, recreation, and stimulation of the mind.

At present the book collection totals over 100,000 carefully chosen volumes. The Library is receiving yearly over 850 periodicals and several indexing service publications. Back files for many of these titles have been bound and are available for permanent reference use on open shelves. An excellent collection of 8,000 general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories has been assembled. Extensive collections of pamphlets, vocational guidance materials, and college catalogs are provided. A depository collection of U.S. Government publications from September, 1957, to date is available. More than 20,000 army, topographical, and state highway maps are also to be found. A comprehensive card catalog and modern microprint and microfilm reading machines are available. The Library also has the catalogs of the U.S. Library of Congress, Bibliothéque Nationale of France, and British Museum.

As an added service for students and faculty, the Library maintains photo reproduction facilities in the Reference Department and in the Fine Arts Reading Room. A nominal fee per page is charged for this service.

The main emphasis of the Library is placed on individual, personal service to faculty and students through general reference and reader's advisory assistance plus the library staff liaison with the teaching program and student activities. Formal and informal instruction in the use of library resources and facilities is offered to all undergraduates. Displays of new and outstanding books of special and unusual interest are maintained in the reading rooms and on the bulletin boards in the lounges and corridors.

The Library has several service areas. (1) The open-shelf Main Reading Room handles the basic collection and is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities in addition to well-lighted study space for several hundred readers. It also contains the foreign language collection and the circulating collection of phonograph recordings. (2) The Fine Arts Reading Room is at the far east end of the Pier on the second level. It contains the collection of art, architecture and music books and offers special facilities for listening to musical and nonmusical recordings via earphone as well as in the soundproof Library Listening Room. It also provides a free lending service of reproductions of famous paintings.

Library assignment.

Time for a snack.

While classes are in session, the Main Reading Room is open Monday through Friday from 8 a.m. to 4:30 p.m., and the Fine Arts Reading Room is open Monday through Friday from 8:30 a.m. to 4:30 p.m. During intersession and vacation periods, the Main Reading Room and the Fine Arts Reading Room operate on an 8:30 a.m. to 4:30 p.m. schedule.

FOOD SERVICE

The University operates nonprofit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the building. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the building, adjacent to the reception lounge. In addition, a dining room at the east end of the building offers cafeteria-style service to members of the faculty and staff.

UNIVERSITY BOOKSTORE

The University Bookstore is operated by the University to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8:30 a.m. to 6 p.m.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Medical examinations are required of all students prior to the time of their first registration. The medical examination may be done by your family physician at your own expense; or at Student Health Service without expense, if appointment is made and examination is completed fifteen days prior to registration. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students without charge.

The staff of physicians also instructs classes in hygiene and sanitation. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations.

The discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5 p.m. daily and during vacation periods.

Are you sick?

EXTRACURRICULAR ACTIVITIES

Student extracurriculuar activities are recognized as an important part of the student's life and are encouraged as an adjunct to curricular courses, in order to develop individual talents in speech, music, drama, journalism, radio production, etc., and qualities of leadership, personality, and character. All questions pertaining to extracurricular activities should be directed to the Office of the Dean of Students, Room 313.

CLUBS AND ORGANIZATIONS

Many student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body. Interested students not on scholastic probation are invited to join the club or organization of their choice. The majority of student groups meet weekly or twice monthly during the scheduled activity hour on Tuesday of each week and on the second and fourth Thursdays of each month.

To avoid conflicts in scheduling student and University events, the Office of the Dean of Women prepares, with the assistance of the faculty and students, the Campus Events Calendar which is published by the University Bookstore. Most social and special events are scheduled in the Office of the Dean of Women.

Opportunities for practical experience in journalism are provided by the weekly student newspaper, the *Pier Illini,* written and edited entirely by students. Winner of eight All-American awards presented by the Associated Collegiate Press, *Pier Illini* is open to all students with an interest in any form of writing, art, photography, etc. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph,* the University of Illinois engineering periodical. Contributions of student members to the publication of the UIC Writers Club, *Mosaic,* and of members of Alpha Lambda Delta in producing *Chi-Illini Cues* likewise offer opportunities to students interested in journalism.

The Pier Glass, published once each semester, is a magazine of the best themes written in freshman rhetoric. The ten or twelve students whose essays are chosen receive prizes, as well as the honor of being represented in the anthology and the satisfaction of seeing their work in print. Competition is keen, and every rhetoric section spends a class meeting in friendly criticism of the current issue, comparing the merits of the prize-winning papers.

Cultural programs which supplement classroom work for students are offered by the Activities Honorary Society, the Cadet Association, Pi Kappa Delta (national forensics honorary), Pershing Rifles, and the Student Education Association. Similar purposes are served by three language clubs, and the Amateur Radio, Biology, Chess, Commerce, Geology, Humanities, International Relations, Inter-Varsity Christian Fellowship, Jazz, Lithuanica, Mathematics, Newman, Collegians, and Ski Clubs. Engineering, architecture, chemistry, predental, pre-law, and pre-medical students may take part in the activities of their respective professional societies. Several are affiliated with national professional organizations. Athletic and physical education organizations include the Varsity Letterman's Club, Men's Physical Education Majors Club, the Co-Recreation Association, the Cheerleaders, Orchesis (the modern dance organization), the Women's Athletic Association, and the Women's Physical Education Majors Club.

Opportunities for experience in music and drama are available through membership in the University Band, the University Choir, the University Orchestra, and the Pier Playhouse. Students who enroll in the musical organizations at registration and meet other requirements may earn academic credit for this work if they so desire. Several musical programs and plays are presented publicly each year.

All-University dances—informal and semi-formal—are planned, supervised, and sponsored by the University Dance Committee. This committee also assists in planning the Registration Dances and student mixers, as well as assisting the special committees appointed in planning the annual Homecoming and Spring Carnival. The Dance Committee is also available to assist other organizations in planning social functions.

THEATER AND CONCERT SERIES

By means of a Lively Arts Series, the University introduces its students to the cultural and intellectual life of Chicago. At the beginning of the fall semester, sets of coupons are placed on sale through the University Bookstore at a substantial discount. These coupons are redeemable for tickets for specific performances. Included are an opera, a ballet, a symphony concert, a play and an art movie. Thus the series is a generous sampling of worthwhile entertainment.

UNIVERSITY CINEMA SERIES

Through the University Cinema Series program, students and staff have the opportunity to view motion picture classics at no cost. They are normally scheduled once a month in the third floor lounge.

FORUM SERIES

Each year six all-University programs are presented in the Auditorium under the direction of the Forum Series Committee. The Forum Series gives students the opportunity to hear distinguished speakers and to see and hear cultural programs of general interest. The programs are financed by a portion of the student activity fee. Admission is free to all students within the seating limitations of the Auditorium. Selection of programs and other administrative details of the series are the responsibility of the Forum Series Committee.

Forum Series programs are usually presented during the activity hour on the third Thursday of October, November, December, February, March, and April. Special programs are arranged to meet occasions of special significance.

FORENSICS

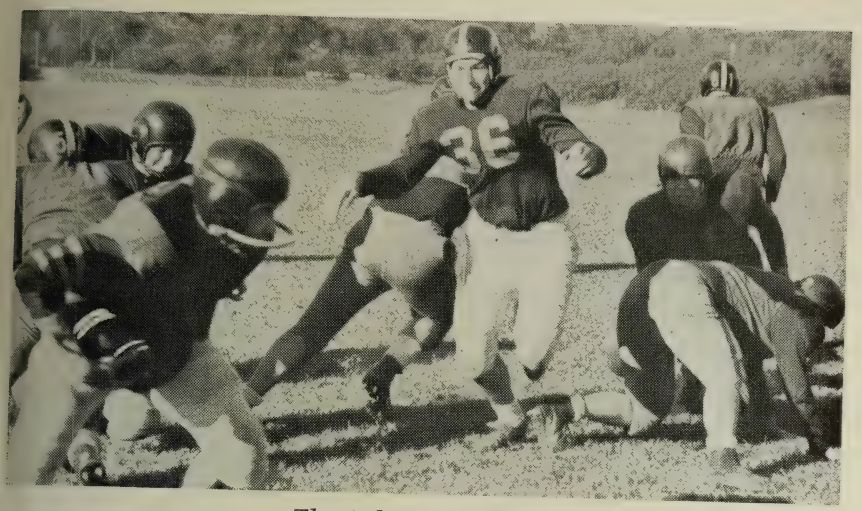
The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating, discussion, and individual events. All students, including those without previous experience, may take part in the forensic activities.

The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the area have included colleges and universities from Florida, Texas, Iowa, Michigan, Missouri, Ohio, and New York. Speakers from the Chicago Undergraduate Division also attend tournaments in Illinois and nearby states, where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition. It has won the Chicago Area, the state, and the regional championships, and in 1952, 1953, 1954, 1956, and 1958 represented the East Central States area in the national championship tournament at West Point, New York.

Problems of national and international interest are the topics for public discussion and panel presentations, both on and off campus. These programs, usually followed by audience participation, are sometimes joint presentations with other colleges and universities. Chicago Undergraduate Division speakers are often featured on adult forum programs.

The Chicago Undergraduate Division serves as national headquarters for the National Contest in Public Discussion. It holds membership in the Illinois Intercollegiate Debate League, the Illinois Intercollegiate Oratorical Association, the Chicago Area Debate League,



The fighting Chi-Illini.

and Pi Kappa Delta. The last of these is a national honorary with 31,000 members and chapters in approximately 270 colleges and universities.

The Chicago Undergraduate Division has been host for some noteworthy forensic events. The Cambridge university debate team met two UIC speakers before an audience of 2,200 in the fall of 1955, and in the spring of 1957 the annual tournament of the Illinois Intercollegiate Debate League was held on this campus. The annual Freshman-Sophomore tournament in December has attracted as many as thirty-nine visiting colleges from eight states, and the annual tournament for high schools in January includes leading teams located within seventy-five miles of Chicago.

ATHLETICS

The Chicago Undergraduate Division participates in eleven varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, soccer, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen in good standing are allowed to participate in varsity sports.

A special feature is the extensive intramural program in which students can elect to take part in wrestling, badminton, table-tennis, volleyball, basketball, gymnastics, handball, weight-lifting, tennis, archery, bowling, swimming, and softball. The intramural and intercollegiate programs are under the supervision of an Athletic Committee of student and faculty representatives. Both programs are financed through funds from student activities fees. The Chicago Undergraduate Division Gymnasium, adjacent to the entrance of the main

building, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the gymnasium which has floor space for eight full-size basketball courts.

A staff of eighteen coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

HONORS

Students who achieve a grade average of 4.5 during the freshman year may be eligible for membership in one of the national scholastic honor fraternities. Women who make an average of 4.5 in 15 hours of academic work during their first semester, or an average of 4.5 in 30 hours during their first year, may be initiated into Alpha Lambda Delta. Men whose average is 4.5 based upon 12 or more hours in the first semester, or 4.5 for the entire freshman year, are eligible for membership in Phi Eta Sigma.

Additional honors include: The Ernest C. VanKeuren award (for excellence in the humanities); the B. B. Freud award (for excellence in chemistry); the Roscoe E. Harris award (for excellence in physics); and the Dean's List of the individual colleges (for all students with grades of "B" or better in all courses).

HONORS DAY

Honors Day is observed at the Chicago Undergraduate Division as an occasion upon which public recognition is given those students who excel in scholarship. The families and friends of the honor students are invited to attend the annual convocation, in which students and members of the faculty participate. The printed program contains the names of students to whom honors have been awarded and also the elections to those honorary societies which meet the standard of scholarship approved by the Senate Committee on Honors.

Two types of honors are awarded: Class Honors and College Honors. To be eligible for Class Honors, a student must be in the highest ten percent of his class in his college and have not less than a 4.0 average. To be awarded College Honors, a student must be in the highest three percent of the class and have a minimum average of 4.5. Grades used in determining honors for students are those on file in the Office of Admissions and Records.

General University Requirements

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be started in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Men and women entering the University with fewer than sixty semester hours of credit are required to secure four semesters of credit in physical education including the amount transferred. Those entering with sixty semester hours or more are exempt from the requirement in physical education.

2. Two semesters of rhetoric (Rhetoric 101 and 102) are required. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric, Rhetoric 200.

THE GRADING SYSTEM

The following grades are given in the University of Illinois: A—Excellent, B—Good, C—Fair, D—Poor (lowest passing grade), E—Failure. The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean of his college and on payment of a fee of $10 (but not within ten days of the final examination period), or he may take courses in sequence, with the approval of the department.

Other symbols in use are:

W—Withdrawn from the course without penalty.

Ex—Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee, but becomes a failure if not removed during the first semester that the student completes in residence following the giving of the grade of "Ex.")

Ab—Absent from the final examination without excuse; counts as a failure. See under "Failure" for method of earning credit in a course in which an "Ab" grade has been received.

Rep—Replaces grade of "Ex" when course in which "Ex" grade was received is repeated by the student.

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A=5 grade points; B=4; C=3; D=2; E=1; Ab=1. To compute the grade point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn three hours of A, six of B, three of C, two of D, and four of E, the computation of your grade point average is as follows:

Grade	Hours	Weight	Grade Points	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	
E	4	1	4	
	18		56	$\frac{56}{18}=3.11$

Your grade point average is 3.11.

Definition of a Semester Hour. In the University, a semester hour of credit represents one classroom hour of fifty minutes weekly of the student's time for the duration of one semester in lecture or recitation, plus the time necessary for preparation; or a longer time in laboratory or other exercises for which outside preparation is not required. It is expected that most students will spend two hours preparation for one hour a week of lecture or recitation. Each University semester hour credit is thus understood to represent at least three hours of the student's time, and the credit value of a course is calculated in semester hours on that basis.

PROFICIENCY EXAMINATIONS

Proficiency examinations, similar to the regular semester examinations, are available in courses normally open to freshmen and sophomores; the student must obtain the consent of the head of the department concerned. There is no fee charged for these examinations. A student who passes a proficiency examination is given credit toward graduation, provided that this does not duplicate credit counted for his admission to the University and the course is acceptable in his curriculum. The grade in proficiency examinations is "pass" or "not

pass," but no student is given a grade of "pass" unless he has made at least "C" in the examination. No official record is made of failures in these examinations, and grades received on proficiency examinations are not considered in computing averages.

Proficiency examinations are given under the following restrictions:

1. They may be taken only by persons who are in residence or, after having been in residence, are registered in a correspondence course; or who are candidates for degrees and need no more than ten semester hours credit to complete the requirements for their degrees;
2. They may not be taken by students who have received credit for more than one semester of work in the subject in advance of the course in which the examination is requested;
3. They may not be taken to raise grades or remove failures in courses.

Colloquium.

College of Commerce and Business Administration

Through training in modern business practices and in the fundamentals of economics, the College of Commerce and Business Administration seeks to develop in its students the abilities necessary for responsible positions in business and government. It offers a unified program of basic studies for freshmen and sophomores and a variety of fields of concentration for juniors and seniors. It is primarily this unified program for freshmen and sophomores which is offered at the Chicago Undergraduate Division. Though the factual contents of many of the courses are directly useful in specific vocations such as accounting, banking, selling, and teaching, students should expect to serve an apprenticeship in the fields they enter after graduation from this college, if they wish to prepare themselves for higher positions. While concentrating in a special field, they are required to elect courses offered in other colleges and schools of the University and to secure as liberal an education as possible to avoid the narrowing effects of overspecialization.

The program for the first and second years is organized around a nucleus of courses in accountancy and economics, mathematics and science, language and literature, and rhetoric and speech. While this program is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies for those who are in college only two years in preparation for work in the business world. Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the College of Education or to the College of Journalism and Communications, as well as to advanced work in the College of Commerce and Business Administration. Students transferring to other colleges after completing the two-year program do not receive their degrees from the College of Commerce and Business Administration but from the college to which they transfer.

In his last two years, in addition to completing the college general education requirements and the college general business education requirements, the student must complete one of the seventeen fields of concentration listed on page 77. These fields overlap to some extent in that they deal with the common problems of business and public affairs. A student electing any one field of concentration ordinarily takes a substantial number of courses in other fields. The program leads to the degree of Bachelor of Science in the chosen field.

For degrees from both the College of Commerce and Business Administration and the College of Law, see page 74.

New freshmen and transfer students have special advisors during the registration period to help them plan their programs.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must:

1. Fulfill general University requirements as to registration, residence, scholarship, and fees.

2. Have a total of 126 credit hours excluding Physical Education and Military, of which not less than sixty credit hours must be in Accountancy, Business Law, Economics, Finance, Management, and Marketing. Business Education courses may be included in the fields of Commercial Teaching and Secretarial Training. In Commercial Teaching and Commerce and Law only forty-five such hours are required, while in Industrial Administration and in Personnel Management the number of such hours is fifty.

3. Complete courses included in University requirements, College General Education requirements, and College General Business requirements. (See pages 75 and 76.)

4. Complete the requirements for one of the fields of concentration. (See page 77.)

5. Have a minimum average of 3.0 for all courses counted toward graduation, a 3.0 average for those courses taken at this university, and a 3.0 average in 200 and 300 level courses in the field of concentration. Physical Education and Military are not counted in the graduation average.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include business law, management, marketing, anthropology, history, philosophy, political science, psychology, and sociology, as well as additional courses in geography, mathematics, science, literature, foreign language, art, architecture, or music. Any advice desired on these electives may be obtained at the office of the dean or from the advisor at the time of registration.

Special Requirements

COLLEGE ALGEBRA: All students entering the College of Commerce and Business Administration without credit in college algebra must take a Mathematics Placement Test to determine whether they should take Mathematics 103, Mathematics 112, or no college algebra. No credit for Mathematics 103 is allowed toward graduation.

BUSINESS LAW: Students planning to major in accountancy or management must take Business Law 201 and 202 rather than Business Law 100; however, a student may take Business Law 100 followed by Business Law 202 with reduced credit.

LITERATURE OR LANGUAGE: Students must obtain credit in six hours of English and/or American literature or a reading knowledge of a modern foreign language equivalent to that resulting from four semesters of study in college. If a student has completed four years of one modern foreign language in high school, he has fulfilled the literature or language requiremnt of this college. Literature may be taken in the sophomore year. Students must select courses that require sophomore standing or above.

SCIENCE OR ADVANCED MATHEMATICS: Courses to fulfill this four-hour requirement may be taken from the following: biology, chemistry, geology, physics, physical science, and mathematics. Mathematics 101, 102, 103, 112, and 161 are not accepted as advanced mathematics.

Commerce and Law

Students interested in obtaining a legal education may take their prelegal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business, corporation, or income tax law. The general requirements are the same as those for all Commerce students shown on page 69. The third year includes requirements of special value to the prelaw student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 96 hours, excluding Physical Education and Military, in the College of Commerce and Business Administration and thirty hours in the College of Law, including all required courses and all other graduation requirements, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. The approved program for this field for the first two years is shown on page 77.

Prejournalism

Students desiring to enter the College of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The general program for this purpose is the same as that shown on page 75.

GENERAL REQUIREMENTS

Normally students must register for not less than fourteen nor more than eighteen credit hours in each semester. Students must take required courses in Groups I, II, and III in the semesters indicated for each course (see page 76). A required course which is failed must be retaken the following semester.

The following graduation requirements are for students entering the College of Commerce and Business Administration after June 1, 1958. For graduation requirements prior to June 1, 1958, refer to the appropriate bulletin.

The requirements for graduation, as stated in Groups I, II, and III (page 76), apply to all fields of concentration except commercial teaching. For a complete statement on commercial teaching, see page 77.

Sample Program for All Commerce Students (Excepting Commercial Teaching)

FIRST YEAR — FIRST SEMESTER	17 HOURS
Accy. 101	3
Rhet. 101	3
Econ. 100	3
Math. 103	3
Science or Advanced Mathematics	4
Physical Education	1

SECOND YEAR	16 or 17 HOURS
Accy. 106 or 108 (106 recommended)	3
Econ. 102	3
Rhet. 151	3
Literature or Language	3
Electives from Group II	3 or 4
Physical Education	3
	1

SECOND SEMESTER	16 HOURS
Accy. 105	3
Rhet. 102	3
Econ. 136 or 138	3
College Algebra	3
Speech 101	3
Physical Education	1

	16 or 17 HOURS
Econ. 103	3
Econ. 170	3
Literature or Language	3 or 4
Choice from Group II or III	6
Physical Education	1

Requirements for all Commerce Students

(Except Commercial Teaching. See page 70)

	CREDIT HOURS	NORMAL SEMESTER
I. University Requirements. All available at the Chicago Undergraduate Division.		
Military[1]	4	1, 2, 3, 4
Physical Education	4	1, 2, 3, 4
Rhetoric 101, 102	6	1, 2,
Total	14	
II. College General Education Requirements. All available at the Chicago Undergraduate Division		
Economics 100—Introduction to Business (strongly recommended)	(3)[2]	1
Economics 136—Economic History of the United States or Economics 138—Introduction to the Economic History of Modern Europe, or Geography 105—Introductory Economic Geography	3	2
Literature or Language[3]	6 to 16	3, 4
Mathematics 103—Introduction to College Algebra and Mathematics 112—College Algebra[4]	0 to 3	1, 2
Rhetoric 151—Business Letter Writing	3	3 or 4
Science or Advanced Mathematics[5]	4	1
Social Science (Anthropology, History, Philosophy, Political Science, Psychology, or Sociology) a minimum of six hours; a minimum of three hours of advanced economics.	9	3 or 4
Speech 101—Principles of Effective Speaking	3	1, 2, 3 or 4
Additional hours in Language, Literature, Advanced Mathematics, Science, Social Science, Art, Architecture, Music, Humanities, and Geography to bring the total of this group, excluding Economics 100, to 36 credit hours	0 to 11	2, 3, 4
Total	36	
III. College General Business Education Requirements. All except those shown with an asterisk are available at the Chicago Undergraduate Division.		
Accountancy 101—Principles of Accounting	3	1
Accountancy 105—Accounting Procedure	3	2
Accountancy 106—Elementary Cost Accounting (recommended), or Accountancy 108—Intermediate Accounting	3	3
Business Law 100—Basic Principles of Business Law (See page 106)	3	4
Economics 102, 103—Principles of Economics	6	3, 4
Economics 170—Elements of Statistics	3	4
Finance 250—Money, Credit, and Banking*	3	
Finance 254—Business Finance*	3	
Management 101—Industrial Organization and Management	3	4
Marketing 101—Principles of Marketing	3	4
Total	33	

[1]Not required if first sixty credit hours are taken at the Chicago Undergraduate Division.

[2]For freshmen only. Students with thirty credit hours or more should not take this course.

[3]If literature is elected, six hours of American or English literature requiring sophomore standing will satisfy the minimum requirement. If language is elected, it must be a modern foreign language and the equivalent of four semesters when pursued in college must be taken to satisfy requirements. (See page 74.)

[4]The placement examination will determine the mathematics course the student will take. Each student must have Mathematics 112 to complete this requirement, unless the placement test indicates that he already has knowledge equivalent to this. The only students exempted from the placement test are those who have college credit in college algebra. (See page 74.)

[5]If science is elected it may be any laboratory science (geography is not included here). If mathematics is elected it may be any course in advance of college algebra, trigonometry included. (See page 74.)

IV. Field of Concentration Requirements and Free Electives.

Sufficient credit hours must be taken here to make a grand total of 126 credit hours, excluding Physical Education and Military Science. None of the required courses in the fields of concentration are available at the Chicago Undergraduate Division.

Fields of Concentration:

Accountancy
Commerce and Law
Commercial Teaching (special program)
Economics of Government and Business, Public Utilities, and Transportation
Economic History
Economic Theory
Finance
General Economics
Industrial Administration
Insurance
Labor Economics
Management
Marketing (ten sub-fields)
Personnel Management
Secretarial Training
Statistical Economics
Urban Land Economics

Questions should be directed to the Associate Dean of the College of Commerce and Business Administration, Room 27.

Curriculum Preparatory to Teaching Commercial Subjects

For the degree of Bachelor of Science in Commercial Teaching. A mimimum of 126 hours of credit, in addition to military and physical education, is required for graduation.

For a major, a minimum of forty-five credit hours in courses in accountancy, business education, business law, economics, finance, management, and marketing is required for graduation in this field of concentration. However, thirty-two of these hours must be exclusive of economics.

For a minor, the student must have, in addition, an approved teaching minor outside the commerce field.

Continuation in this curriculum requires admission of the student to advanced standing in teacher education. Admission to advanced standing is determined on the basis of the applicant's academic and personal qualifications for teaching. The completion of certain standardized tests is required. The record of an applicant whose academic average is below 3.5 is subject to special study.

FIRST YEAR FIRST SEMESTER	17 HOURS
Accy. 101—Principles of Accounting	3
Science or Advanced Mathematics	4
Econ. 136—American Economic History, or Econ. 138—European Economic History	3
Math. 112—College Algebra[1]	3
Rhet. 101—Rhetoric and Composition	3
Physical Education	1

SECOND YEAR FIRST SEMESTER	17 HOURS
Accy. 108—Intermediate Accounting	3
Econ. 102—Principles of Economics	3
Geog. 105—Introduction to Economic Geography	3
Rhet. 151—Business Letter Writing	3
Psych. 100—Introduction to Psychology	4
Physical Education	1

SECOND SEMESTER	16 HOURS
Accy. 105—Accounting Procedure	3
Science or Advanced Mathematics	4
Ed. 101—The Nature of the Teaching Profession	2
Econ. 136—American Economic, History, or Econ. 138—European Economic History	3
Rhet. 102—Rhetoric and Composition	3
Physical Education	1

SECOND SEMESTER[2]	17 HOURS
Econ. 103—Principles of Economics	3
Hist. 152—History of the United States	3
Mktg. 101—Principles of Marketing	3
Ed. 201—Foundations of American Education	2
Sociol. 100—Principles of Sociology	3
Physical Education	1

[1]May require adjustment. See note 4 above.

[2]If there is room for electives, they could include Business Law 100, Political Science 150 as specific requirements; Accountancy 108, American or English Literature, or Philosophy 105 as option electives; Management 101 as a free elective. Whichever ones are chosen would affect the junior or senior program in that respect.

College of Engineering

To prepare men for professional work in engineering and architecture and for responsible positions of a technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and engineering sciences and their applications to the design, construction, and operation of industrial plants, buildings and homes, and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems similar to those of practicing architects and engineers. The curricula in architecture in the College of Engineering are offered under the Department of Architecture and Art. A discussion of the curricula in architecture is presented following the curricula in engineering.

In addition to the fundamental and technological courses in each curriculum, cultural courses are required, such as history, economics, and rhetoric. Other courses are elective and are presented to provide the student with an awareness of the urgent problems of society and to develop a deeper appreciation of the cultural achievements of man. These socio-humanistic courses, recognized as fundamental background for the achievement of a full life are drawn from liberal arts, sciences, economics, sociology, fine and applied arts, and other sources.

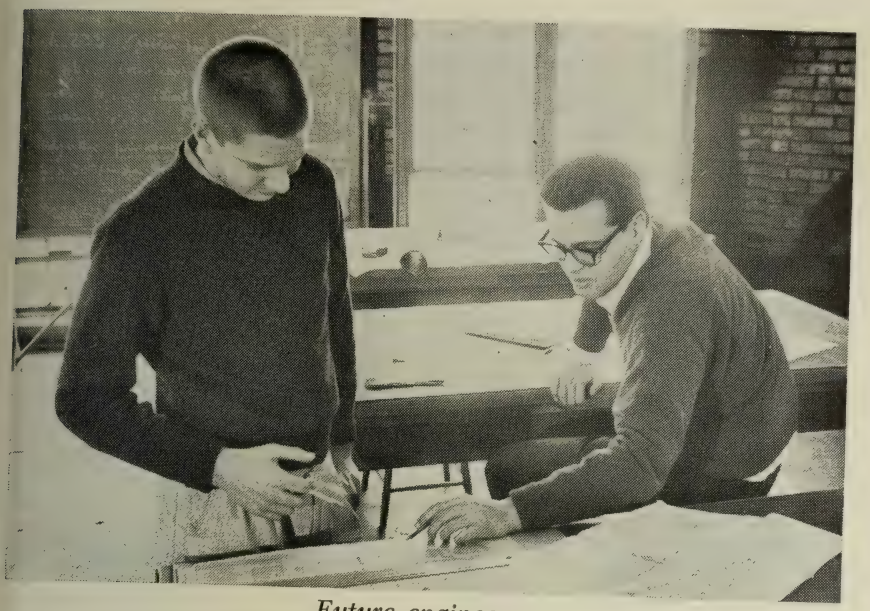
At the Chicago Undergraduate Division the first two years are offered in the fields of aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, industrial engineering, mechanical engineering, metallurgical engineering, mining engineering, theoretical and applied mechanics, and the combined liberal arts-engineering curriculum. Those few required courses which are not available here are noted.

Instruction is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois to complete the courses leading to the degree.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing



Future engineers.

a fifth year of work consisting of thirty to thirty-six semester hours, acceptable to the faculty of this college, providing plans have been made toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Electives and Options

Each engineering curriculum offers some elective opportunities which may be specified as technical, nontechnical, or social science or humanities. All technical elective courses must be chosen from departmental approved lists. Nontechnical, social science, or humanities electives may be chosen from the lists below; however, the student should make sure that he is fulfilling minimum requirements in each area as outlined in his curriculum.

An option is a group of related courses in a special field of subject matter.

Technical Electives

Chemical Engineering, Chemistry, and Mathematics—all courses.
Geology—all courses except Geology 102.

Nontechnical Electives

Commerce and Business Administration—all courses.

Geology 102
Hygiene—all courses
Liberal Arts and Sciences—all courses except those in astronomy, chemical engineering, chemistry, geology, and mathematics noted under technical electives.
Social Science and Humanities—all courses listed below

Social Science and Humanities Electives

Anthropology—all courses
Architecture 113, 214
Art 111, 112, 115
Economics—all courses except Economics 170
Foreign languages—any courses with a maximum of six hours credit toward humanities electives. Foreign students receive no credit for their native languages. The remaining two hours may be used as nontechnical electives.
General Engineering 220
Geography 104, 105, 123
History—all courses
Humanities—all courses
Literature—all courses in modern or classical literature
Music 130, 131
Philosophy—all courses
Political Science—all courses
Psychology—all courses except Psychology 135
Social Science 111, 113, 116
Sociology—all courses

Common Program for Freshmen

The entrance requirements to the College of Engineering in mathematics are three and one-half units: algebra, two units; plane geometry, one unit; and trigonometry, one-half unit. It is recommended that students also take solid geometry in high school. Students continue to be admitted on the basis of a minimum of one unit each in algebra and plane geometry, but they are required to make up the deficiencies during their first year in college. This delays their graduation one semester unless steps are taken early to offset the deficiencies. It is recommended that such students attend a summer session preceding entrance into college or immediately following their first year, thus eliminating the extra semester at the end. A mathematics placement examination is given to all students presenting three and one-half or four units of high school mathematics. A passing grade on this examination is required for a student to enroll in analytic geometry the first semester. Students having college credit for algebra and trigonometry are not required to take this examination.

Freshman students who have had a year of chemistry in high school, who make a high score on the chemistry placement test, and who qualify for at least Mathematics 112 on the mathematics placement test may omit Chemistry 102 and 104. These courses are replaced by Chemistry 109, a five-hour course, and two additional hours of electives.

Transfer students should follow the curriculum listed in the Undergraduate Study bulletin for the year in which they entered the University of Illinois.

Common Program for Freshmen, All Engineering Curricula

FIRST YEAR FIRST SEMESTER 15 OR 16 HOURS		SECOND SEMESTER 18 HOURS	
Chem. 102 or 103[1]—General Chemistry	3 or 4	Chem. 104—Chemistry of Metallic Elements[1]	4
G.E. 101—Engineering Graphical Communication	3	G.E. 102—Engineering Geometry	3
Math. 123—Analytic Geometry[2]	5	Math. 133—Calculus	3
Rhet. 101—Rhetoric and Composition	3	Physics 106—Mechanics	4
Physical Education	1	Rhet. 102—Rhetoric and Composition	3
		Physical Education	1

Curriculum in Aeronautical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 17 HOURS	
Math. 143—Calculus	5	Math. 343—Advanced Calculus	3
M. E. 182—Manufacturing Processes	3	Physics 108—Sound, Light, and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Modern History or Political Science	4	Modern History or Political Science	4
Physical Education	1	Physical Education	1

[1]Students may use only three hours of Chemistry 103 towards degree in engineering. See note in paragraph on Common Program for Freshmen about substitution of Chem. 109 for Chem. 102 or 104.
[2]Math. 112 and 114 for those entering with two or three units of high school mathematics. This also applies to those who do not pass the mathematics placement examination.

Curriculum in Ceramic Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS		SECOND SEMESTER 18 HOURS	
Cer. E. 101—Introduction to Ceramic Engineering[1]	3	Cer. E.—102 Ceramic Processes and Equipment[1]	3
Chem. 124—Quantitative Analysis	5	Geol. 130—Mineralogy for Engineers[1]	3
Math. 143—Calculus	5	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Physical Education	1	Econ. 108—Elements of Economics	3
		Physical Education	1

[1]Not offered at Chicago Undergraduate Division.

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. See page 93.

Curriculum in Civil Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 OR 19 HOURS

C. E. 101—Elementary Surveying 3
Math. 143—Calculus 5
Physics 107—Heat, Magnetism, Electricity 4
T.A.M. 150 or 151—Analytical Mechanics (Statics) .....2 or 3
Social Science or Humanities Elective 3
Physical Education 1

SUMMER

C.E. 207—Summer Surveying Camp 5

SECOND YEAR SECOND SEMESTER 17 HOURS

Geol. 150—Geology for Engineers 3
Physics 108—Sound, Light, Modern Physics 4
T.A.M. 211—Analytical Mechanics (Dynamics) 3
T.A.M. 221—Elementary Mechanics of Deformable Bodies 3
Econ. 108—Elements of Economics 3
C.E. 195—Introduction to Civil Engineering...0
Physical Education 1

Curriculum in Electrical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS

Math. 143—Calculus 5
Physics 107—Heat, Electricity and Magnetism .4
Speech 101—Principles of Effective Speaking ..3
T.A.M. 154—Analytical Mechanics (Statics and Dynamics) 4
Physical Education 1

SECOND SEMESTER 18 HOURS

Econ. 108—Elements of Economics 3
Math. 345—Differential Equations and Orthogonal Functions 3
E.E. 126—Electric Circuits and Fields 4
Physics 108—Sound, Light and Modern Physics .4
Physical Education 1
Social Sciences or Humanities or Technical Elective 3

Curriculum in Engineering Mechanics

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 16 HOURS

Math. 143—Calculus 5
Physics 107—Heat, Electricity, Magnetism ...4
T.A.M. 151—Statics 3
Nontechnical Elective 3
Physical Education 1

SECOND SEMESTER 17 HOURS

Math. 341—Differential Equations 3
Physics 108—Sound, Light and Modern Physics 4
T.A.M. 211—Analytical Mechanics (Dynamics) 3
T.A.M. 221—Elementary Mechanics of Deformable Bodies 3
Nontechnical Elective 3
Physical Education 1

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for research in engineering problems or for graduate work in Physics. It may also be used to prepare for positions in certain industries not requiring a graduate degree.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

FIRST YEAR

Common Program for Freshmen.

(Substitution of Chem. 106 for Chem. 104 is advised).

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 16 HOURS	
German or Nontechnical Electives[1]	4	German or Nontechnical Electives[1]	4
Math. 143—Calculus	5	Math. 343—Advanced Calculus	3
Physics 107—Heat, Electricity and Magnetism	4	Physics 108—Sound, Light and Modern Physics	4
Social Sciences or Humanities[1]	3	Physics 341—Electricity and Magnetism	4
Physical Education	1	Physical Education	1

[1]Students should consult departmental list of approved courses.

Curriculum in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula with their emphasis on test procedures and design, but who wish to secure a sound education in engineering principles and their application. Two sequences of basic engineering design are available with secondary fields of concentration in business, sales, technical journalism, or geological engineering. Other areas of study may be selected with the approval of the department.

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 19 HOURS		SECOND SEMESTER 17 HOURS	
C.E. 101—Surveying or M.E. 182—Manufacturing Processes	3	G.E. 221—Introduction to Design	3
Econ. 108—Elements of Economics	3	Math. 345—Differential Equations and Orthogonal Functions	3
T.A.M. 150 or 151—Analytical Mechanics (Statics)	2 or 3	Physics 108—Sound, Light and Modern Physics	4
Math. 143—Calculus	5	Speech 101—Principles of Effective Speaking	3
Physics 107—Heat, Electricity and Magnetism	4	Elective	3
Physical Education	1	Physical Education	1

Curriculum in Industrial Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS		SECOND SEMESTER 17 HOURS	
Econ. 108—Elements of Economics	3	Math. 263—Statistics for Engineers	3
Math. 143—Calculus	5	M.E. 184—Metal Processing or M.E. 183—Materials Casting	3
M.E. 183—Materials Casting, or M.E. 184—Metal, Processing	3	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	Speech 101—Principles of Effective Speaking	3
T.A.M. 150—Analytical Mechanics (Statics)	2	T.A.M. 211—Analytical Mechanics (Dynamics)	3
Physical Education	1	Physical Education	1

Curriculum in Mechanical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 18 HOURS		SECOND SEMESTER 17 HOURS	
Econ. 108—Elements of Economics	3	Math. 345—Differential Equations and Orthogonal Functions	3
Math. 143—Calculus	5	M. E. 184—Metal Processing, or M. E. 183—Materials Casting	3
M. E. 183—Materials Casting, or M. E. 184—Metal Processing	3	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity, Magnetism	4	T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 150—Analytical Mechanics (Statics)	2	Speech 101—Principles of Effective Speaking	3
Physical Education	1	Physical Education	1

Curriculum in Metallurgical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5
Math. 143—Calculus	5
Physics 107—Heat, Electricity and Magnetism	4
Social Sciences or Humanities	3
Physical Education	1

SECOND SEMESTER	18 HOURS
Cer. E. 221—Pyrometry[1]	2
Met. E. 201—Physical Metallurgy[1]	3
Met. E. 203—Physical Metallurgy Laboratory[1]	1
Physics 108—Sound, Light and Modern Physics	4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Social Sciences or Humanities	3
Physical Education	1

[1]Not offered at Chicago Undergraduate Division.

Combined Program in Engineering and Liberal Arts and Sciences

See the description of this program on page 94 of the catalog.

Architecture

Administered by the College of Engineering.

Architecture is a five-year course offered with two optional curricula. The general option offers advanced work in the design and planning of larger projects and the engineering option emphasizes structural design and theory. Both options lead to the degree of bachelor of architecture. The work in the first year is identical and the student makes his choice between the general option and the engineering option at the beginning of the second year. The engineering option requires calculus and more advanced theoretical and applied mechanics.

The general option in architecture contains a well-balanced program of creative and technical training. Together with the necessary practical experience, it prepares the student for State Professional Registration. The engineering option, likewise, prepares the student for registration, but it offers advanced study in structure in place of architectural design in the last year and qualifies the student in the field of architectural engineering.

Both options include general studies in the humanities and the social and physical sciences necessary for the understanding and appreciation of better environment.

The department of architecture offers excellent facilities in lecture, drafting, and class rooms. There is a departmental library of nearly 10,000 volumes, over 10,000 slides, and innumerable magazines, pamphlets, and graphic materials.

Since the Undergraduate Division is located in Chicago, the department has numerous opportunities to present outstanding architects, professional lectures, and inspection trips to museums, galleries, and various types of buildings under construction.

In the curriculum in architecture normal course progress in sequence is imperative. Students failing to complete any required course more than one semester later than the time designated in the curriculum will be prohibited from progressive registration in architectural courses until the deficiency is corrected.

Regulations governing students who register in the University of Illinois in architecture:

1. Because of space limitations at Urbana, Architecture students who register at the Chicago Undergraduate Division may not transfer to the Urbana campus until they have completed that portion of the program offered at the Chicago Undergraduate Division.

2. Such students who register at Urbana but who later transfer to the Chicago Undergraduate Division must complete that portion of the program offered at the Chicago Undergraduate Division prior to readmission at Urbana. *Note:* This does not apply to students who transfer to the Chicago Undergraduate Division for the Summer Session.

Electives

Electives provided in the two architectural curricula may consist of any courses given in the University not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131, 132; Geography 104, 105; Geology 101; Biology 101, 111; Speech 101, 141; Accountancy 101. Courses with prerequisite of sophomore standing which are acceptable as electives include Rhetoric 151; Economics 108; English 131; Political Science 150, 151.

Curriculum in Architecture (Five Years)

FIRST YEAR FIRST SEMESTER 15-17 HOURS
Art 181—Freehand Drawing 2
G. E. 107—Architectural Projections 2
Math. 111 or Math. 112—College Algebra .....5 or 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Elective 2
Physical Education 1

SECOND YEAR FIRST SEMESTER 16 HOURS
Arch. 131—Architectural Design 3
Arch. 141—Materials and Methods of Construction I 2
Art 183—Freehand Drawing 2
Physics 101—General Physics 5
Elective 3
Physical Education 1

THIRD YEAR FIRST SEMESTER 16 HOURS
Arch. 233—Architectural Design 3
Arch. 241—Materials and Methods of Construction III 2
Arch. 214—History of Medieval Architecture 3
Art 281—Freehand Drawing 2
Sociol. 276—Sociology of the City 3
T.A.M. 172—Strength of Materials 3

SECOND SEMESTER 16 HOURS
Arch. 101—Introduction to Architecture 3
Art 182—Freehand Drawing 2
G. E. 108—Architectural Projections 2
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND SEMESTER 16 HOURS
Arch. 113—History of Ancient Architecture ..2
Arch. 132—Architectural Design 3
Arch. 142—Materials and Methods of Construction II 2
Art 184—Freehand Drawing 2
T.A.M. 171—Elementary Mechanics 3
Soc. 100—Introduction to Soc. 3
Physical Education 1

Curriculum in Architectural Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 16-18 HOURS
Art 181—Freehand Drawing 2
G. E. 107—Architectural Projections 2
Math. 111 or Math 112—College Algebra ..... 5 or 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Elective 3
Physical Education 1

SECOND YEAR FIRST SEMESTER 16 HOURS
Arch. 131—Architectural Design 3
Arch. 141—Materials and Methods of Construction I 2
Art 183—Freehand Drawing 2
Math. 133—Calculus 3
Physics 101—General Physics 5
Physical Education 1

THIRD YEAR FIRST SEMESTER 16 HOURS
Arch. 233—Architectural Design 3
Arch. 241—Materials and Methods of Construction III 2
Arch. 214—History of Medieval Architecture 3
Art 281—Freehand Drawing 2
Sociol. 276—Sociology of the City ..... 3[1]
T.A.M 221—Resistance of Materials 3
T.A.M.—Laboratory 1

SECOND SEMESTER 16 HOURS
Arch. 101—Introduction to Architecture 3
Art 182—Freehand Drawing 2
G. E. 108—Architectural Projections 2
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND SEMESTER 17 HOURS
Arch. 113—History of Ancient Architecture 2
Arch. 132—Architectural Design 3
Arch. 142—Materials and Methods of Construction II 2
Art 184—Freehand Drawing 2
Math. 143—Calculus 5
T.A.M. 150—Analytical Mechanics 2
Physical Education 1

[1] Soc. 100 is a prerequisite to this course.

Art

Administered by the College of Engineering.

The curricula in Art permit a student to attain a proficiency in art and to secure a liberal education. The first year is basic and cultural and at the beginning of the second year the student chooses his field of specialization in one of the following: Advertising Design, Industrial Design, Art Education, History of Art, Painting. These curricula all require 130 semester hours of credit in addition to physical education and military training for the degree of Bachelor of Fine Arts.

Common Program for Freshman, All Art Curricula

FIRST YEAR FIRST SEMESTER 15 to 16 HOURS
G. E. 107——Architectural Projections 2
Art 117—Drawing 3
Art 119—Design 2
Rhet. 101—Rhetoric and Composition 3
Foreign Language or Elective[1] ..... 3 or 4
Pnysical Education 1
Military (men) 1

SECOND SEMESTER 14 TO 16 HOURS
G. E. 108—Architectural Projections 2
Art 118—Drawing 2
Art 120—Design 3
Rhet. 102—Rhetoric and Composition 3
Foreign Language or Elective[1] ..... 3 or 4
Physical Education 1
Military (men) 1

[1] Electives must be chosen from the areas of humanities, social sciences, and natural sciences, and must include a minimum of three hours in each area.

Curriculum in Advertising Design

FIRST YEAR
Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS
Art 111—Introduction to Ancient and Medieval Art 3
Art 127—Drawing, III 3
Art 129—Anatomy, I[2] 2
Art 131—Elementary Composition 2
Art 141—Still Life 2
Physical Education 1
Military (men) 1
Electives 3

SECOND SEMESTER 17 HOURS
Art 112—Introduction to Renaissance and Modern Art 3
Art 128—Drawing, IV 3
Art 130—Anatomy, II[2] 2
Art 132—Elementary Composition 2
Art 142—Still Life 2
Physical Education 1
Military (men) 1
Electives 3

[2] Not offered at the Chicago Undergraduate Division.

Curriculum in Art Education

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR	17 OR 18 HOURS
Art 125—Life Drawing	2
Art 131—Elementary Composition	2
Ed. 101—The Nature of the Teaching Profession	2
Natural Science[1]	3
Physical Education	1
Military (men)	1
Electives	7

	17 OR 18 HOURS
Art 126—Life Drawing	2
Art 132—Elementary Composition	2
Art 141—Still Life	2
Natural Science[1]	3
Psych. 100—Introduction to Psychology	4
Physical Education	1
Military (men)	1
Electives	3

[1]Botany, zoology, chemistry, physics, geology, geography, biology, general science, mathematics (excluding arithmetic), and physiology, or their equivalents in integrated courses.

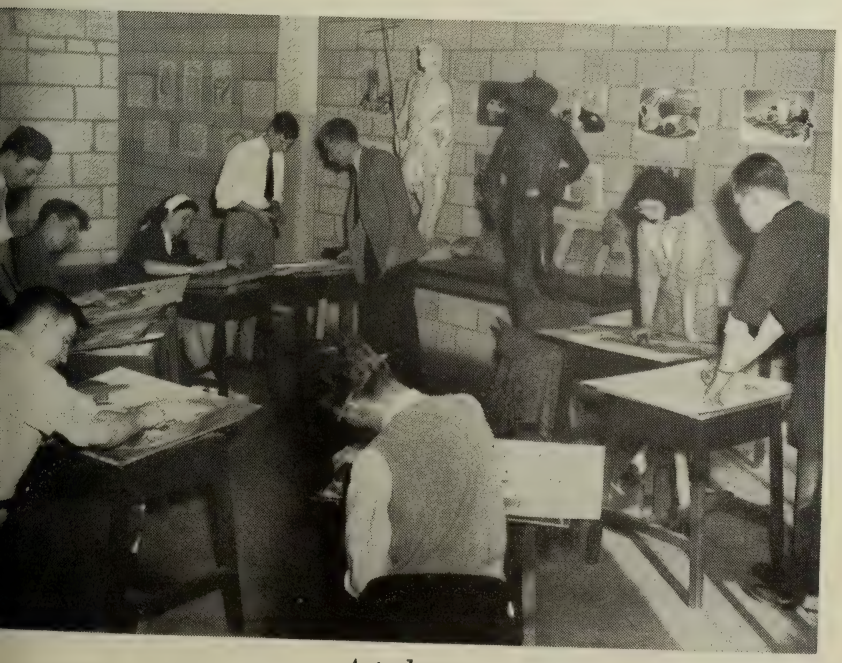
Curriculum in Industrial Design

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	16-18 HOURS
Art 111—Introduction to Ancient and Medieval Art	3
Art 133—Design Workshop	2
Art 151—Sculpture	2
Phys. Sci. 101—Physical Science	4
Math. 112—College Algebra, and Math. 114—Plane Trigonometry, or Art 125—Life Drawing, and Art 141—Still Life	5 or 4
Physical Education	1
Military (men)	1

SECOND SEMESTER	16 or 17 HOURS
Art 112—Introduction to Renaissance and Modern Art	3
Art 134—Design Workshop	2
Art 152—Sculpture	2
Phys. Sci. 102—Physical Science	4
Math. 123—Analytic Geometry, or Art 126—Life Drawing, and Art 142—Still Life	4
Physical Education	1
Military (men)	1



Art class.

College of Liberal Arts and Sciences

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education, with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years and to change his vocational objective without additional time. Such a change after the beginning of the junior year usually can not be made without loss of time. It is assumed that except for pre-medical students, upon completion of the two years' work in the Chicago Undergraduate Division, students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice, so that they may plan their work most effectively within the framework of University of Illinois requirements while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, physics, premedicine (complete three-year program), predentistry, prenursing, teacher-education, prelaw, preveterinary medicine, prejournalism, combined liberal arts-engineering, and one year of occupational therapy, prepharmacy, forestry, and home economics. Content of the courses closely parallels that on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in the field of concentration before beginning the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of

courses to be taken by any student in each of the four years of this curriculum.

Under the guidance of an advisor, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 89, 90 and 91 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Physical Education—Four semesters.

Military Science—Four semesters, except that men transferring from the Chicago Undergraduate Division with sixty hours are exempt from this requirement.

Rhetoric—Rhetoric 101 and 102. (A student with "C" or "D" in Rhetoric 102 must pass a qualifying examination or take Rhetoric 200.)

Foreign Language—Equivalent of two college years in the same language.

Biological Sciences[1]—Eight hours.

Physical Sciences[1]—Eight hours.

Humanities[1]—Eight hours.

Social Sciences[1]—Eight hours.

Major—Twenty approved hours in one department.

Minor(s) — Twenty approved hours in one or two departments.

Advanced hours—Thirty hours of credit in courses not open to freshmen and sophomores.

Residence — Either first ninety hours uninterrupted, or last thirty hours uninterrupted at the University of Illinois in Urbana. For students at the Chicago Undergraduate Division, the junior or senior year (thirty semester hours) must be taken at Urbana.

Average—3.0 ("C") minimum average in all work and in all work at Illinois.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of "D".

[1] The eight hours must be taken in approved sequence.

REQUIRED SUBJECTS

1. Foreign Language. A reading knowledge of a foreign language equivalent to that resulting from four semesters of study of a foreign language commenced in college. Completion of four years of foreign language in high school also satisfies this requirement. Proficiency examinations are offered in those languages which are included in the

curriculum of the College of Liberal Arts and Sciences. Students transferring from other colleges may present in satisfaction of the language requirement two years of college credit in a language not offered at the University of Illinois. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

2. General Education. To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each area, is required: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.

ELECTIVES

1. Liberal Arts and Sciences. Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

2. Other Colleges. Electives totaling as much as but not more than thirty-two hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list:

Time out!

Accountancy. A total of 6 hours (including not more than one of the following courses: Accountancy 101, 201).

Agricultural Economics. A total of 6 hours.

Architecture. A total of 15 hours.

Art. A total of 15 hours, unless the student is majoring in history of art.

Aviation. A total of 3 hours.

Business Law. A total of 6 hours.

City Planning and Landscape Architecture. A total of 7 hours.

Dance. A total of 6 hours from Dance 240, 246.

Economics. All courses.

Education. A total of 20 hours.

Engineering. A total of 10 hours. However, a student in the combined LAS-Engineering curriculum may count all engineering courses toward the two degrees.

Finance. All courses.

Food Technology. A total of 6 hours.

Forestry. A total of 3 hours.

Home Economics. All courses.

Horticulture. A total of 6 hours.

Hygiene. A total of 2 hours.

Journalism. A total of 10 hours.

Law. A student of senior standing with an average of 3.5 who has been in residence either the first two years or the last year of his prelegal work may take and count toward the A.B. degree not to exceed 32 hours in the University of Illinois College of Law. A student of senior standing with an average of 3.5 who has completed his first three years (not less than 88 semester hours excluding basic military and physical education) in residence at the University of Illinois (a student at the Chicago Undergraduate Division must complete his junior year with at least 30 semester hours at Urbana) and who transfers to an accredited college of law other than that of the University of Illinois may count 32 hours of law toward the A.B. degree. The applicant for the degree will petition the dean of the College of Liberal Arts and Sciences, who may approve the granting of the bachelor's degree if all the college and university requirements have been met, and the student is in good standing in the law school from which the credit is being transferred.

Library Science. A total of 20 hours.

Management and Marketing. A total of 6 hours. Typing, secretarial training, and shorthand may not be counted for credit.

Military. A total of 8 hours in advanced courses.

Music. A total of 15 hours approved by the director of the School, unless the student is majoring in music.

Physics. All courses.

SPECIAL CURRICULA

Chemistry and Chemical Engineering

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or Russian. When a student does not offer either German or Russian for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum, and should be taken in immediate sequence.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 123, and who do not have two units of high school credit in Russian or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing in the curriculum.

Curriculum in Chemistry

FIRST YEAR FIRST SEMESTER	17 HOURS
Chem. 107—General Chemistry[1]	5
German[2]	4
Math. 112—College Algebra	3
Math. 114—Trigonometry	2
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND YEAR FIRST SEMESTER	16 HOURS
Chem. 124—Quantitative Analysis	5
Math. 133—Calculus	3
Physics 106—Mechanics	5
Electives[3]	3
Physical Education	

SECOND SEMESTER	17 HOURS
Chem. 108—General Chemistry and Qualitative Analysis	5
German[2]	4
Math. 123—Analytic Geometry	5
Rhet. 102—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER	17 or 18 HOURS
Chem. 234—Organic Chemistry	5
Math. 143—Calculus	5
Physics 107—Heat, Electricity, Magnetism	5
Electives[3]	2 or 3
Physical Education	

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]German and Russian (Russian is not offered at the Chicago Undergraduate Division) are the acceptable languages in this curriculum.

[3]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

Curriculum in Chemical Engineering (Four Years)

FIRST YEAR FIRST SEMESTER 16 HOURS

Chem. 107—General Chemistry[1] 5
G. E. 101—Elements of Drawing 3
Math. 123—Analytic Geometry[3] 5
Rhet. 101—Rhetoric and Composition 3
Physical Education

SECOND YEAR FIRST SEMESTER 18 HOURS

Chem. 124—Quantitative Analysis 5
German or French[4] 4
Math. 143—Calculus 5
Physics 107—Heat, Electricity, Magnetism .. .4
Physical Education

SECOND SEMESTER 15 to 18 HOURS

Chem. 108—General Chemistry and Qualitative Analysis 5
Math. 133—Calculus 3
Physics 106—Mechanics 4
Rhet. 102—Rhetoric and Composition 3
Electives[2] .....0 to 3
Physical Education

SECOND SEMESTER 17 HOURS

Chem. 342—Elementary Physical Chemistry 3
Chem. 343—Physical Chemistry Laboratory ...1
German or French[4] 4
Physics 108—Sound, Light and Modern Physics 4
T.A.M. 150—Analytical Mechanics (Statics) ..2
Electives[5] 3
Physical Education

Optional Curriculum in Chemical Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 15 to 17 HOURS

Chem. 101 or 102—General Chemistry[6] ..5 or 3
German 4
Math. 112—College Algebra 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Physical Education

SECOND YEAR FIRST SEMESTER 17 HOURS

Chem. 110—Qualitative Analysis 5
German 4
Math. 133—Calculus 3
Physics 106—Mechanics 5
Physical Education

SECOND SEMESTER 17 HOURS

Chem. 106—Inorganic Chemistry 5
German 4
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education

SECOND SEMESTER 18 HOURS

Chem. 124—Quantitative Analysis 5
German 4
Physics 107—Heat, Electricity, Magnetism 4
Math. 143—Calculus 5
Physical Education

---

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

[3]Students without the required entrance credits in mathematics take Mathematics 112 (or 103), 114, 123, 133, and 143.

[4]Two years of German and/or Russian are required for the B.S. degree. Two units of high school credit in either of these languages is equivalent to one year of college credit. Students entering without German or Russian in high school may substitute the second year of the language requirement for the eight hours of electives referred to in footnote 5.

[5]Eight hours of electives must be chosen from the Divisions of Humanities or Social Sciences with the approval of the advisor. The courses are intended to broaden the engineer and provide an interest and liberal education in history, language, literature, philosophy, political science, or public speaking.

[6]Students who qualify for Chemistry 107 should take the Chemistry 107, 108, 124, 342 sequence rather than Chemistry 101, 106, 110, 124 and thus have five additional hours of advanced electives.

Chemistry lab.

Combined Program in Engineering and Liberal Arts and Sciences

The Colleges of Engineering and Liberal Arts and Sciences offer a combined program of five years leading to a baccalaureate degree from each college. This curriculum requires 166 hours for graduation, exclusive of physical education and military science. It is possible to combine any of certain engineering curricula—aeronautical, agricultural, civil, electrical, engineering mechanics, physics, industrial, mechanical—with any one of certain majors in Liberal Arts and Sciences—anthropology, astronomy, classics, English, French, history, Latin, mathematics, philosophy, physics, political science, psychology, Russian, sociology, Spanish, speech. Other combinations will require more than ten semesters.

The first year is the program common to freshmen in Engineering and may be taken in either college. The second and third years are taken in Liberal Arts and Sciences, and the last two years are taken in Engineering. All graduation requirements of both colleges must be met.

Students entering this curriculum must meet the admission requirements of both colleges. A student dropping out of the program will be subject to the existing graduation requirements of the college of his choice. A student in the curriculum is governed by the proba-

tion and drop rules of the college in which he is registered. A student who completes the foreign language requirement in Liberal Arts and Sciences in less than four semesters must replace the hours thus released by work in social sciences or humanities.

Students transferring from the Chicago Undergraduate Division must plan to complete at least one year in the College of Liberal Arts and Sciences and two years in the College of Engineering at Urbana. Graduation will be from both colleges simultaneously on completion of the entire program.

Transfer students who have more than 75 hours are ineligible for this program. Applications from transfer students for the combined program must be made at least six weeks in advance of the opening of the term.

Forestry Curriculum

Students may take the first year of the four-year forestry curriculum, administered by the College of Agriculture at Urbana, at the Chicago Undergraduate Division. Courses for the freshman program in forestry should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Home Economics Curriculum

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Predental Curriculum

Students applying for admission to the predental curriculum must have ranked in the upper half of their high school graduating classes. They must maintain at all times in the curriculum a minimum average of 3.5. Since the function of the predental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours include social sciences, humanities, and at least one modern language.

The specific requirements for admission to the College of Dentistry are as follows:

	SEMESTER HOURS
Chemistry (including three hours of quantitative analysis and four hours of organic chemistry—Chemistry 101 or 102, 105, 122, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology[1])	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives (Social Sciences, Humanities, and at least one modern langugae; excluding military, hygiene, and physical education)	30
Total	60

[1] The general zoology requirement may be met by Biol. 101 and 131 or Biol. 101 with a grade of "B."

Prejournalism Curriculum

Students planning to enter the College of Journalism and Communications register as prejournalism freshmen and sophomores, following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering the junior year.

For admission to the College of Journalism and Communications as a candidate for a degree, a student must have completed fifty-six semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military training, with an average grade of 3.5. An applicant for admission will find it to his advantage to include in his prejournalism curriculum courses in economics, English, history, foreign languages, political science, psychology, and sociology.

The College of Journalism and Communications offers the following curricula: editorial, advertising, publication, management, and radio-television.

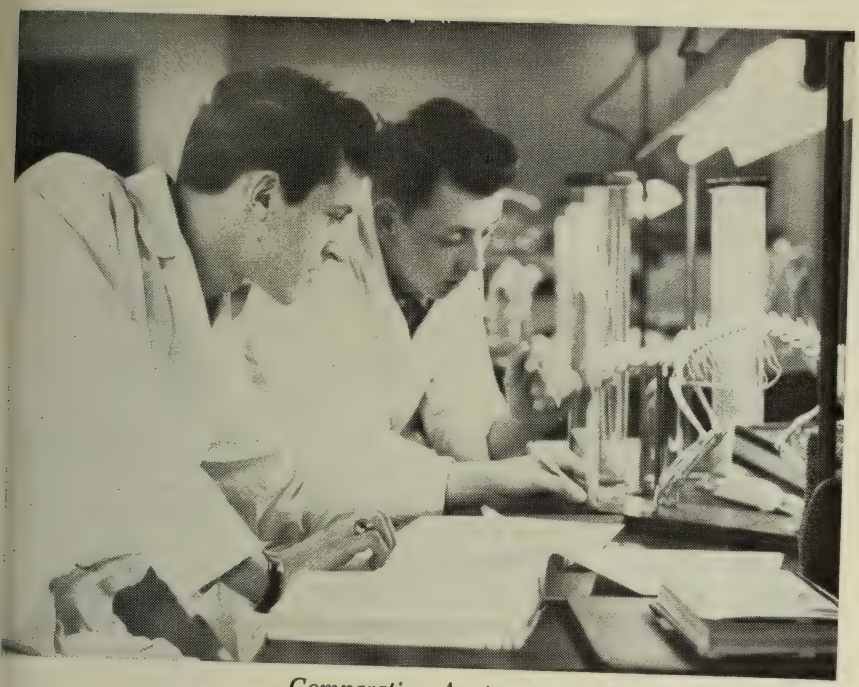
Prelaw Curriculum

The prelegal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Service at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both Liberal Arts and Law comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements except the minor and advanced hours before entering the College of Law. The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; psychology; sociology; mathematics; and accountancy.

Premedical Curriculum

Any freshman whose scholastic rank is in the upper half of his high school graduating class is eligible for admission to the premedical curriculum. Premedical students must maintain a 3.5 average to remain in the curriculum. A student transferring to this college with advanced



Comparative Anatomy.

standing must meet this standard in terms of the University's grading system in order to be admitted to the premedical curriculum.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	SEMESTER HOURS
Non-Science Courses (32 semester hours required)	
English	6
Foreign Language	6
Social Science and Humanities (at least three hours from each area)	16
Electives	4
Laboratory Sciences (32 semester hours required)	
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and embryology)	10
Chemistry (including in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	14
Physics (including laboratory work in mechanics, heat, sound, light, and electricity)	8
Upper division courses in one area	6
Free Electives	24
Physical Education, 4 semesters	
Total	94

Prepharmacy Curriculum

Admission to the College of Pharmacy of the University of Illinois requires favorable action by the Admissions Committee of that college. To be eligible for consideration by the Committee a student must: (1) present six hours of rhetoric, one year of general chemistry, five hours of college algebra and trigonometry; (2) have a total of thirty hours of credit excluding hygiene, military science, and physical education; (3) have a grade point average of at least 3.0.

The specific requirements can be met at the Chicago Undergraduate Division through Rhetoric 101, 102; Chemistry 102 (101), 105; Mathematics 112, 114. These courses total 19-21 hours. The additional work will be taken in foreign language, as required in Liberal Arts and Sciences, social sciences, and/or humanities. Students deficient in preparation for Mathematics 112 will start with Mathematics 103.

Students who transfer into this curriculum at the end of their first semester may find it necessary to complete the requirements in the Summer Session.

Curricula in Nursing

The University offers two degree programs leading to a Bachelor of Science in Nursing. One is for students direct from high school, the second is a continuation program for registered nurses who meet a specific set of requirements. Each program is made up of two phases—a preprofessional year in the College of Liberal Arts and Sciences, and the professional phase administered by the College of Nursing.

Admission to the preprofessional year in both programs is restricted to students from the upper half of the high school class who are eligible to enter the College of Liberal Arts and Sciences. Transfer students must have a 3.0 scholastic average.

Admission to the professional phase is on recommendation of the Admissions Committee of the College of Nursing after completion of the following preprofessional year:

Rhetoric 101, 102	6
Chemistry 102 (or 101), 132	6-8
Biology 101	4
Humanities	6-8
Social Sciences	6-8
Electives	
Physical Education	
Totals	30

Specific questions on both programs should be addressed to the Dean of the College of Nursing, 1853 W. Polk Street, Chicago 12, Illinois.

Occupational Therapy

The University offers a baccalaureate degree program in occupational therapy, open both to men and women, and requiring six semesters of work in the College of Liberal Arts and Sciences and five quarters in the College of Medicine. The first year may be taken at the Chicago Undergraduate Division.

Admission to the curriculum is restricted to students from the upper half of the high school graduating class, who are in good health as determined by a physical examination, and who are approved

by the Director of the curriculum. A 3.5 average is required for admission to the professional phase of the curriculum.

The work of the first year is as follows:

	SEMESTER HOURS
Rhetoric 101, 102	6
Biology 101, 141	8
Art 181, 182	4
Speech 101	3
Hygiene 104	2
Electives (foreign language, social science, humanities)	8-10
Physical Education	
Total	31-33

Curriculum in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining the B.S. degree. It specifies the courses essential to a strong foundation in physics and permits concentration in the first two years on basic courses which are prerequisite to advanced courses in physics and mathematics.

It is planned for a student entering with four years of high school mathematics, including trigonometry (see, however, footnote 1 following curriculum), a year of chemistry, and no French or German. A student who can satisfy the college language requirement on entering has the distinct advantage of adding 16 hours of electives to his course of study. A student who has a year of high school biology will also have more freedom in choice of electives (see footnote 4 following curriculum).

Physics Experiments.

To enter the physics curriculum, an entering freshman must rank in the upper half of his high school class. To be permitted to register in advanced physics or mathematics courses in this curriculum, students must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military science and physical education, and a combined grade average of at least 3.5 in all courses completed in physics and mathematics. Transfer students must have a corresponding record in the institution from which they transfer.

FIRST YEAR FIRST SEMESTER 16 HOURS	
Math. 123—Analytic Geometry[1]	5
Chem. 103—General Chemistry[2]	4
German or French[3]	4
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND SEMESTER 16 OR 17 HOURS	
Math. 133—Calculus[1]	3
Chem. 104—Chemistry of the Metallic Elements[2]	4
German or French[3]	4
Rhet. 102—Rhetoric and Composition	3
Elective	2 or 3
Physical Education	

SECOND YEAR FIRST SEMESTER 17 HOURS	
Math. 143—Calculus[1]	5
Physics 106—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

SECOND SEMESTER 15 HOURS	
Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

[1]The prerequisite to entering the stated sequence in mathematics is three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the mathematics placement examination. Students having college credit for algebra and trigonometry are not required to take the examination. A student who does not meet the above prerequisite may meet the requirements in basic mathematics with the sequence Math. 112, 114, 123, 133, 143, but he will receive only 13 hours credit toward the degree.

[2]The chemistry requirement may be satisfied by a year of general chemistry selected from courses Chem. 101 through 108, or by the one-semester course, Chem. 109. A maximum of eight hours in general chemistry will be counted toward the degree, except that ten hours will be allowed for Chem. 107 and 108.

[3]The language requirement is a reading knowledge of German or French. A student planning to enter graduate study should attain a reading knowledge of both German and French.

[4]The elective subjects must include at least 24 hours of course work in humanities, social sciences, and biological sciences. The courses must satisfy the general education requirements of the college, except that students offering one unit or more of biology for admission may substitute additional courses in humanities and social sciences for biological sciences. Students will be advised to include six to eight hours of physics and three to six hours of mathematics among the remaining electives.

Teacher Education Curricula

Of the curricula in teacher education which have been approved by the College of Liberal Arts and Sciences, preliminary work in thirteen curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid, and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

While these curricula vary considerably from one another, the common core of the first two years is as follows:

	FIRST YEAR	SECOND YEAR
	SEMESTER HOURS	
Physical Education	2	2
Rhetoric 101, 102	6	
Speech 101	3	
Foreign Language (until a 104 course is completed)	8	8
Science	6-8	
English or Social Studies as required		6-8
Specific requirements. Education 101, History 151 or 152, Political Science 150, Psychology 100		13
Work in major teaching field and electives	3-7	4-6
Total	30-32	32-34

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this college.

The work of the first two years in this curriculum has the following pattern:

	FIRST YEAR	SECOND YEAR
	SEMESTER HOURS	
Physical Education	2	2
Rhetoric 101, 102	6	
Speech	2-3	
Language arts	6-8	
Science, biological and physical	8	8
Social Studies	8	
Specific requirements, Education 101, Geography 104, History 151 or 152, Political Science 150, Psychology 100		16
Electives		7-9
Total	32-34	32-34

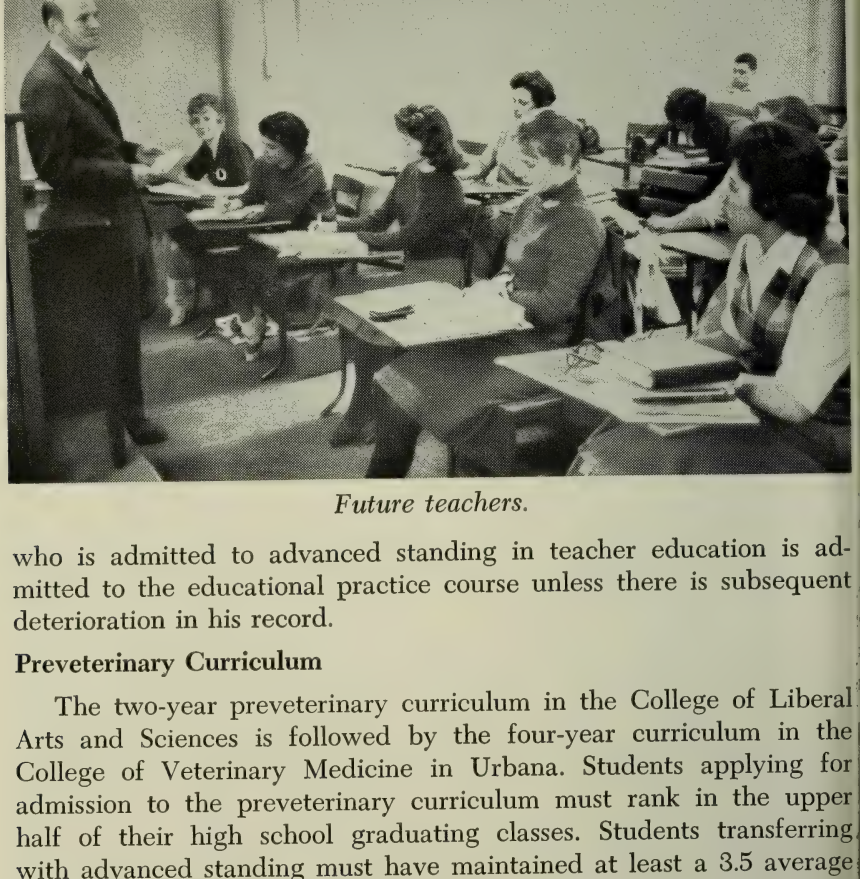
Admission to the curricula preparatory to teaching deaf and hard-of-hearing children or mentally handicapped children requires the meeting of qualitative and physical requirements and a personal interview. The determination of courses will be made with a teacher education advisor.

Admission to Advanced Standing in Teacher Education

Continuation in teacher education programs requires admission of the student to advanced standing in teacher education. Application for admission to advanced standing must be made early in the first semester of the sophomore year. A student who transfers to a teacher education curriculum with more than sophomore standing must apply for admission to advanced standing early in his first semester of attendance. Information about the procedure for applying for advanced standing is available from the Teacher Education Advisor, Room 36.

Admission to advanced standing is determined on the basis of the applicant's academic and personal qualifications for teaching. The completion of certain standardized tests is required. The record of an applicant whose academic average is below 3.5 is subject to special study.

Admission to advanced standing in teacher education is prerequisite to admission to education practice (student teaching). A student



Future teachers.

who is admitted to advanced standing in teacher education is admitted to the educational practice course unless there is subsequent deterioration in his record.

Preveterinary Curriculum

The two-year preveterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the preveterinary curriculum must rank in the upper half of their high school graduating classes. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

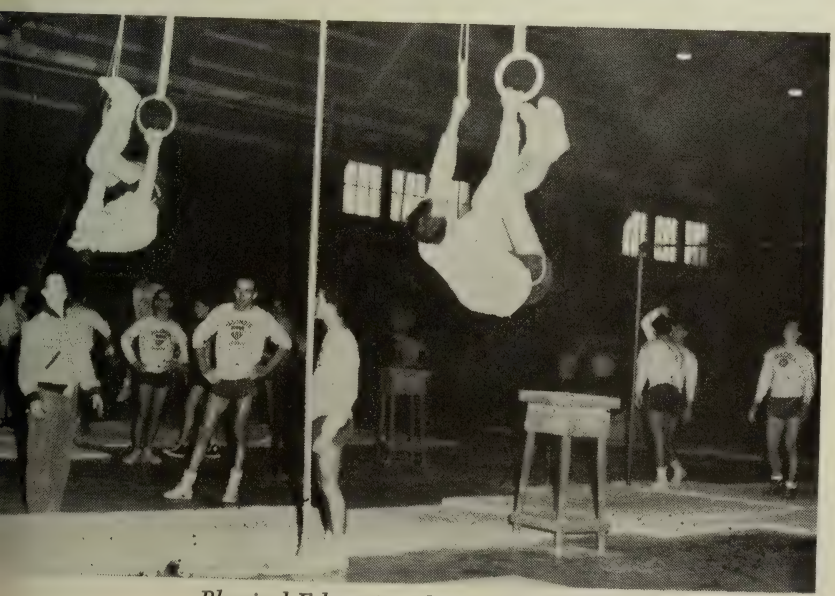
	SEMESTER HOURS
Chemistry (including organic and quantitative analysis—Chemistry 101 or 102, 105, 122, and 133)	16
Biological Sciences (including botany and general zoology)	8
Physics (including laboratory—Physics 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	9
Free electives	7
Total	60

The preveterinary curriculum is extremely rigid, and failure to register in the prescribed courses in the proper sequence may result in an additional semester of study.

College of Physical Education

All students entering the university as freshmen are required to obtain four semesters credit in physical education. Each student is given a health examination and a placement test before registration. The findings of the Health Service and the testing division are used as a basis for prescribing each student's program. Students with handicapping defects are assigned prescribed activities. Students with low placement scores are assigned to basic physical fitness courses. Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for one and one-half hours. All non-professional courses in physical education carry one hour credit.

Men entering the University with less than sixty semester hours credit are required to secure four semesters credit in physical education, including the amount transferred. In addition to a basic physical fitness program, men are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, basketball, back yard sports, personal defense activities, and intercollegiate and intramural athletics.



Physical Education class—apparatus.

Veterans who have fulfilled the physical education requirement while in the service are exempt from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce and Business Administration.

Women entering the University as freshmen are required to obtain four semesters credit in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of physical education. Women are offered instruction in elementary and intermediate rhythms, ballroom dance, speedball, modified activities, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extracurricular activities in sports and the dance.

PROFESSIONAL CURRICULA

In addition to the service program, the College of Physical Education offers the first two years of a four-year program leading to the degree of Bachelor of Science in Physical Education, for both men and women. Men desiring to major in Recreation or Health Education, and women desiring to major in Dance, may take at least one year of work at this Division. Complete information concerning the professional curricula is available at the office of the Associate Dean of the College of Physical Education (for men) and from the Head of the Department of Physical Education for Women.

Curriculum in Physical Education for Men

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 150—Professional Orientation	2	P.M.M. 155—Gymnastics	
P.E.M. 151—Beginning Basketball	2	P.E.M. 156—Wrestling	
P.E.M. 152—Beginning Football	2	P.E.M. 157—Track & Field	
Speech 101—Prin. of Effect. Sp.	3	P.E.M. 158—Baseball	
Rec. 174—Camp Counseling	3	Biol. 101—Fundamentals of Biol.	
Hyg. 104—Science of Per. Health	2	Rhet. 102—Rhetoric & Comp.	
Rhet. 101—Rhetoric & Composition	3	Hyg. 110—Public Health	
	17	Humanities Elective	
			16

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 153 Fitness Programs	2	Rec. 170—Outdoor Rec. Spts.	
P.E.M. 154—Swimming	2	Rec. 171—Indoor Rec. Spts.	
Rec. 176—Principles of Rec.	3	Dance 235—Square & Ballrm.	
Pol. Sci. 150—American Government	3	P.E.M. 209—History of Spt.	
Psych. 100—Introduction to Psych.	4	History 152—American History	
Education 201—Found. of Am. Ed.	2	Rhet. 151—Bus. Letter Writ.	
	16	Electives	
			18

Curriculum in Physical Education for Women

A minimum of 132 hours of credit, counting physical education, is required for graduation.

FIRST YEAR

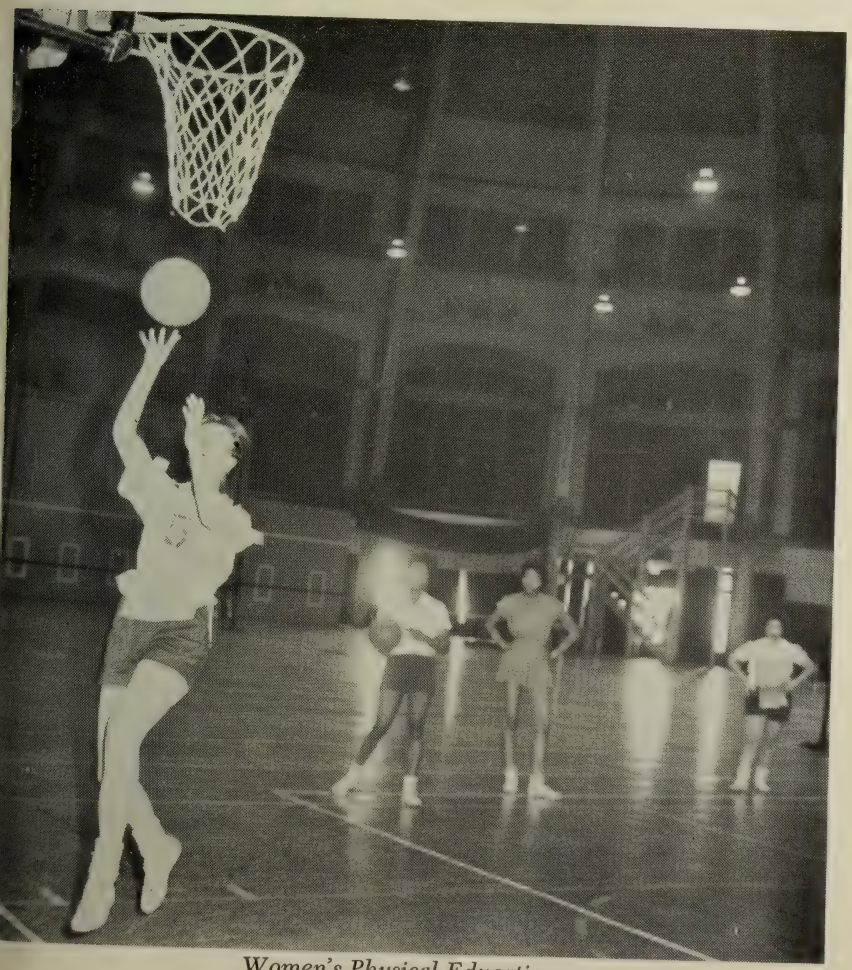
FIRST SEMESTER	HOURS
P.E.W. 150—Professional Orientation	2
P.E.W. 151—Body Mechanics and Gymnastics	1
P.E.W. 110—Swimming	1
Rhet. 101—Freshman Rhet. and Comp.	3
Biol. 101—Fundamentals of Biology	4
Hygiene 104—The Science of Personal Health	2
Gr. Elective	3
P.E.W. Elective	1
Total	17

SECOND SEMESTER	HOURS
P.E.W. 152—Volleyball and Softball	1
Dance 160—Beginning Contemporary Dance	1
Rhet. 102—Freshman Rhet. and Comp.	3
Speech 101—Principles of Effective Speaking	3
Psych. 100—Introduction to Psychology	4
Gr. Elective	3
P.E.W. Elective	1
Total	16

SECOND YEAR

FIRST SEMESTER	
P.E.W. 153—Hockey, Soccer and Basketball	1
Dance 235—Square and Ballroom Dance	2
H.E. 281—First Aid	2
Pol. Sci. 150—American Government	3
Gr. Elective	2
Group Elective or Minor	6
P.E.W. Elective	1
Total	17

SECOND SEMESTER	
P.E.W. 154—Tumbling and Tennis	1
P.E.W. 166—Elementary School Games	2
P.E.W. 201—Badminton, Archery, Track and Field	1
Ed. 109—Educational Psychology	3
Hist. 152—History of U. S. from 1865 to Present	4
Free Elective or Minor	5
P.E.W. Elective	1
	17



Women's Physical Education.

U. S. Army Reserve Officers' Training Corps

Authorization

The Reserve Officers' Training Corps (R.O.T.C.) is organized under authority of section 40 through 47c of the National Defense Act of 1916, as amended, and was activated at the University of Illinois, Chicago Undergraduate Division, in September 1950.

Educational Aim

The fundamental educational aim of the R.O.T.C. is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and to so prepare him that, in time of national emergency, he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspects of the military training program give the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should instill in the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The R.O.T.C. course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the R.O.T.C. are that the student be regularly enrolled in the University, be a citizen of the United States, be within specified age limits, be physically qualified, and be approved by the Professor of Military Science and Tactics.

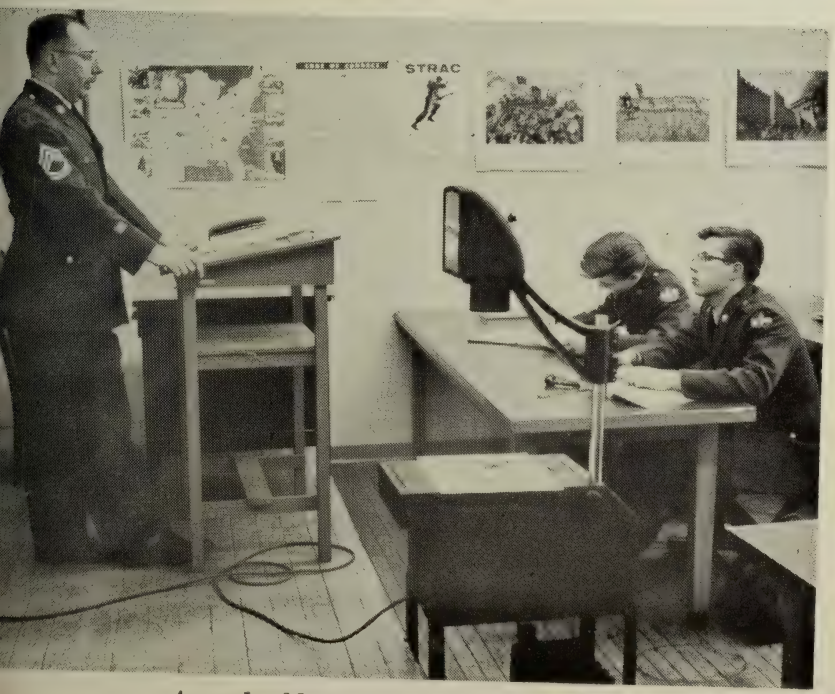
Note: Students who voluntarily enroll in R.O.T.C. thereby become obligated to fulfill the University degree requirement in Military Science; namely, successful completion of the basic course.

Program of Instruction

College level R.O.T.C. instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, which comprises the last two years of the program. Only the first two years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the basic course. Students in the basic course devote three hours a week to military instruction which consists of two hours of classroom instruction and one hour of drill. Credit for the basic course is one credit hour each semester. A student entering the University of Illinois after successfully completing military training at a high school or preparatory school which has an accredited Junior Division R.O.T.C. program will be entitled, upon enrollment, to such placement as may be determined by the Professor of Military Science and Tactics. In no case will this placement exceed the first year of the basic course. Any member of the U. S. Army Reserve who has completed a six-month tour of active duty for training is eligible to enroll in the basic course of R.O.T.C. Constructive credit not to exceed the first year



A good soldier is born in the classroom.

of the basic course may be given to individuals in this category. These individuals also may substitute completion of a satisfactory year of R.O.T.C. training for a required satisfactory year of training in the Ready Reserve.

Advanced Course

The advanced course of the R.O.T.C. leads to a Reserve or Regular commission in the U. S. Army. Any student enrolling in the advanced course must be prepared to pursue the course to completion, and must be able to qualify for appointment as a second lieutenant prior to reaching twenty-eight years of age. The objective of the advanced course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular Army units.

All members of the advanced course will receive the following: monetary allowance in lieu of subsistence, officer-type uniform, the pay of the first enlisted grade while at the advanced summer encampment, and all necessary texts and materials on a loan basis.

Deferment from Selective Service

Deferment from Selective Service is granted for completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and civilian faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the R.O.T.C. receive an Army green uniform and textbooks, at government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of $10 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

Courses of Instruction

The following list of undergraduate courses is arranged in alphabetical order. The courses offered by each department are listed numerically in groups with headings to indicate the students for whom they are designed. Courses for undergraduates (freshmen and sophomores) are numbered 100 to 199; those for advanced undergraduates (junior and seniors), are numbered 200 to 399. *Most* courses are given each semester. See, however, semester timetable for precise offerings.

Students having ninety-five or more hours of credit, without regard to the college in which they may be enrolled, are classified as seniors for the purpose of designating those freshman courses which, when taken by seniors, carry reduced credit.

Following the title of each course is a description of its content, the credit given, and the requirements for admission to the course, if any.

ACCOUNTANCY

Accy. 101. Principles of Accounting. Credit 3 hours. Beginners' course. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students with 95 or more credit hours receive only 2 hours credit.

Accy. 105. Accounting Procedure. Credit 3 hours. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting, business forms and records; payroll accounting; single entry; financial statement analysis. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

Accy. 106. Elementary Cost Accounting. Credit 3 hours. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. Prerequisite: One year of accountancy; sophomore standing.

Accy. 108. Intermediate Accounting. Credit 3 hours. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. Prerequisite: One year of accountancy; sophomore standing.

Accy. 308. Advanced Accounting. Credit 3 hours. Reserves, sinking funds, actuarial methods, investments, partnerships, statements for special purposes, receiverships, consolidated balance sheets, foreign exchange. Prerequisite: Accountancy 106 and 108; an average of 3.0 in preceding courses in accountancy.

ANTHROPOLOGY

Anthrop. 102. Introduction to Anthropology: The Origin of Man and Culture. Credit 4 hours. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. This course with Anthropology 103 satisfies the social science requirement in Liberal Arts and Sciences.

Anthrop. 103. Introduction to Anthropology; The Growth of Culture. Credit 4 hours. An introduction to and survey of the development of cultures with special attention to invention, diffusion, adaptation, integration, and other processes of cultural growth as illustrated by primitive and native populations of the world. Recommended though not required to be taken with Anthropology 102 as a survey of the field of anthropology. This course with Anthropology 102 satisfies the social science requirement in Liberal Arts and Sciences.

ARCHITECTURE

Arch. 101. Introduction to Architecture. Credit 3 hours. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Prerequisite: Credit or registration in General Engineering 107.

Arch. 113. History of Ancient Architecture. Credit 2 hours. A description and analysis of the development of the architecture of the ancient East, Greece and Rome, related to the environmental and cultural setting. Prerequisite: Architecture 131 or sophomore standing.

Arch. 131. Architectural Design. Credit 3 hours. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. Prerequisite: Sophomore standing, Arch. 101, credit in G.E. 108, and registration in Arch. 141.

Arch. 132. Architectural Design. Credit 3 hours. Continued study of the fundamentals of architectural design. Prerequisite: Architecture 131.

Arch. 141. Materials and Methods of Construction I. Credit 2 hours. Wood frame construction as used in houses; manufacture and performance characteristics of materials; farming systems; typical details; finishing materials. Prerequisite: Registration in Architecture 131, and credit in G.E. 108.

Arch. 142. Materials and Methods of Construction II. Credit 2 hours. Nonfire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures and drawings. Prerequisite: Architecture 141.

Arch. 214. History of Medieval Architecture. Credit 3 hours. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. Prerequisite: Architecture 113 or consent of instructor.

Arch. 233. Architectural Design. Credit 3 hours. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. Prerequisite: Architecture 132, credit or registration in T.A.M. 150 or 171, and registration in Arch. 241.

Arch. 241. Materials and Methods of Construction III. Credit 2 hours. Semifireproof construction, manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Prerequisite: Architecture 142 and registration in Arch. 233.

ART

Art 111. Survey of Art History. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance.

Art 112. Introduction to Renaissance and Modern Art. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period.

Art 115. Art Appreciation. Credit 3 hours. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students.

Art 117. Drawing I. Credit 3 hours. Theory and practice in the elements of drawing.

Art 118. Drawing II. Credit 2 hours. Continuation of Art 117. Prerequisite: Art 117.

Art 119. Design. Credit 2 hours. Theory and practice in the elements of design.

Art 120. Design. Credit 3 hours. Continuation of Art 119. Prerequisite: Art 119.

Art 125. Life Drawing. Credit 2 hours. Prerequisite: Art 118.

Art 126. Life Drawing. Credit 2 hours. Continuation of Art 125. Prerequisite: Art 125.

Art 131. Elementary Composition. Credit 2 hours. Pictorial composition in line, pattern, and color. Prerequisite: Art 118 and 120.

Art 132. Elementary Composition. Credit 2 hours. Continuation of Art 131. Prerequisite: Art 131.

Art 133. Design Workshop. Credit 2 hours. Fundamentals of three-dimensional design. Primarily for students in the industrial curriculum. Prerequisite: Art 118 and 120.

Art 141. Still Life. Credit 2 hours. Painting in oil from arranged groups. Prerequisite: Art 118 and 120.

Art 142. Still Life. Credit 2 hours. Continuation of Art 141. Prerequisite: Art 141.

Art 151. Sculpture. Credit 2 hours. Anatomical and ornamental forms: plaster molds and models; wood and stone sculpture. Prerequisite: Art 118 and 120.

Art 181. Freehand Drawing. Credit 2 hours. Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture.

Art 182. Freehand Drawing. Credit 2 hours. Continuation of Art 181. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Prerequisite: Art 181.

Art 183. Freehand Drawing. Credit 2 hours. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 182.

Art 184. Freehand Drawing. Credit 2 hours. Continuation of Art 183. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 183.

Art 281. Freehand Drawing. Credit 2 hours. Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. Prerequisite: Art 184.

BIOLOGICAL SCIENCES

Biology 101. Fundamentals of Biology. Credit 4 hours. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for Biol. 101 in addition to D.G.S. 131 or Biol. 111.

Biology 102. Fundamentals of Biology, Continued. Credit 4 hours. Application of biological principles to the living world. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biol. 101. Credit will not be given for Biol. 102 in addition to D.G.S. 132.

Biology 111. General Botany. Credit 4 hours. The basic principles of plant structure, growth, physiology, reproduction, evolution and distribution, with special emphasis upon the role of the plant kingdom in the cycles of nature and human life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement or consent of the instructor. Credit will not be given for Biol. 111 in addition to Biol. 101 or D.G.S. 131.

Biology 115. Introductory Systematic Botany (Plant Taxonomy). Credit 4 hours. Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures and laboratory. Prerequisite: Biology 102 or 111.

Biology 116. Economic Botany. Credit 3 hours. Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Applications to forest, drug, food, textile, beverage and other industries. Lectures and discussion. Prerequisite: Biology 102 or 111.

Biology 120. The Plant Kingdom. Credit 4 hours. An introductory study of the life histories of plants representative of algae, fungi, ferns, and seed plants. Prerequisite: Biology 111 or 102, or Biology 101, with a grade of "B" or higher.

Biology 121. Microbiology. Credit 4 hours. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals,

as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures and laboratory. Prerequisite: Biology 102 or Biology 101 with a grade of B or A.

Biology 126. Advanced General Bacteriology. Credit 4 hours. General technic, special apparatus and methods. Lectures and laboratory. Prerequisite: Biology 121, credit or registration in Chemistry 105.

Biology 131. General Zoology. Credit 4 hours. A survey of the animal kingdom. The structures, functions, life history, adaptations, classification and evolutionary relationships of animals. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 111 or Biology 101 with a grade of B or A.

Biology 132. Comparative Vertebrate Anatomy. Credit 5 hours. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. Prerequisite: Biology 102 or 131, or Biology 101 with a grade of "B" or higher.

Biology 136. Bird Study. Credit 2 hours. Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation.

Biology 141. Vertebrate Physiology. Credit 4 hours. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 102; or Biology 101 with a grade of "B" or higher.

Biology 142. Physiology of the Nervous System. Credit 4 hours. This course is designed to furnish an understanding of the physiological activities by which the nervous system carries out its function. Recommended as background for students of psychology, education, or biological sciences. Lectures and laboratory. Prerequisite: Biology 141.

Biology 333. Vertebrate Embryology. Credit 5 hours. The development of the vertebrate body and its organs. Lectures and laboratory. Prerequisite: Biology 132, junior standing.

Biology 341. General Ecology. Credit 3 hours. The study of organisms with relations to environment emphasizing population and community aspects. Lectures and discussion. Field trips required. Prerequisite: One year of biological science, junior standing.

Biology 351. Genetics and Evolution. Credit 3 hours. Analysis of the theories of evolution, the mechanism of evolutionary changes, and the principles of heredity. Lectures and discussion. Prerequisite: One year of biological science, junior standing.

USINESS LAW

usiness Law 100. Basic Principles of Business Law. Credit 3 hours. Basic principles of business law, covering the subjects of contracts, sales, negotiable instruments and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. Prerequisite: Accountancy 105; Economics 102; 45 credit hours.

CHEMISTRY

(All courses, except 247, 342, 343, consist of lectures, laboratory and quiz.)

Chem. 101. General Chemistry. Credit 4 hours. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 102. General Chemistry. Credit 3 hours. For students who have had one year of high school chemistry, and whose preparation is adequate as indicated by placement examination. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: One unit of entrance credit in chemistry or equivalent.

Chem. 103. General Chemistry. Credit 4 hours. For engineering students who have had no chemistry or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 104. Chemistry of the Metallic Elements. Credit 4 hours. Limited to students in engineering curricula. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105, 106 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 105. Inorganic Chemistry and Qualitative Analysis. Credit 5 hours. For students who are not eligible for Chemistry 104 or 106. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 106. Inorganic Chemistry. Credit 5 hours. Metallic elements. For students in curricula in chemistry, chemical engineering, and chemistry majors who are not premedical students. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104, 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 107. General Chemistry. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.

Chem. 108. General Chemistry and Qualitative Analysis. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Credit is not granted to students who have received credit in Chemistry 104, 105, 106 or 109. Prerequisite: Chemistry 107.

Chem. 109. General and Inorganic Chemistry. Credit 5 hours. A course in general chemistry and the chemistry of the elements and inorganic compounds, completing in one semester the work usually taken in two. Limited to students in the engineering and physics curricula. Not open to students who have college credit in chemistry. Students with 95 or

more credit hours receive only 3 hours credit. Prerequisite: Open only to students in the top quarter of their graduating class who qualify on the Chemistry Placement Test and are placed in Mathematics 112 or above.

Chem. 110. Qualitative Analysis. Credit 5 hours. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students who major in chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. Prerequisite: Chemistry 106 or equivalent.

Chem. 122. Elementary Quantitative Analysis. Credit 5 hours. Gravimetric and volumetric analysis, stoichiometrical relations, practical application. Prerequisite: Chemistry 105 or equivalent.

Chem. 123. Quantitative Analysis for Engineers. Credit 5 hours. A course in quantitative analysis designed for the needs of engineers, especially ceramic and metallurgical. Prerequisite: Chemistry 104, 105 or 109.

Chem. 124. Quantitative Analysis. Credit 5 hours. For all students in the chemistry curriculum and chemical engineering. Prerequisite: Chemistry 108, 110 or equivalent.

Chem. 132. Elementary Organic Chemistry. Credit 3 hours. This course does not satisfy the organic chemistry prerequisite for Chemistry 350, 354 or 355. Beginning course in organic chemistry especially for students in the prenursing curriculum. Prerequisite: Chemistry 101, 102, 109 or equivalent.

Chem. 133. Elementary Organic Chemistry. Credit 5 hours. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Prerequisite: Chemistry 105 or equivalent.

Chem. 234. Organic Chemistry. Credit 5 hours. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. Prerequisite: Chemistry 124.

Chem. 247. Elementary Physical Chemistry. Credit 4 hours. For premedical students and others not in chemistry and engineering curricula. Lectures and laboratory. Prerequisite: Chemistry 122 and 133; Physics 102 or equivalent.

Chem. 336. Organic Chemistry. Credit 3 hours. For premedical students who have completed Chemistry 122 and 133 and have the recommendation of the department, and for Chemistry majors who have completed Chemistry 234.

Chem. 337. Organic Chemistry Laboratory. Credit 2 hours. For students with credit in, or registered in, Chem. 336.

Chem. 342. Physical Chemistry. Credit 3 hours. Introduction to the study of chemical principles. Prerequisite: Chemistry 124; Physics 106, 107 and 108, or two semesters of general physics with concurrent registration in the third semester; credit or registration in Mathematics 143; or equivalents.

Chem. 343. Physical Chemistry Laboratory. Credit 1 hour. Quantitative experimental study of chemical principles. Prerequisite: Credit or registration in Chemistry 342.

CIVIL ENGINEERING

C. E. 101. Elementary Surveying. Credit 3 hours. Fundamental surveying operations. Prerequisite: General Engineering 101 and credit or registration in Mathematics 123.

C. E. 195. Introduction to Civil Engineering. No credit hours. A series of informal lectures and discussions on the field of civil engineering, including the position and function of the civil engineer, history of civil engineering and a qualitative approach to civil engineering problems. Prerequisite: Sophomore standing in civil engineering.

C. E. 207. Surveying Camp. Credit 5 hours. Principles and practice of topographic engineering, route engineering, hydrographic surveying, and control surveying. Given in summer surveying camp at Camp Rabideau in northern Minnesota. Prerequisite: Civil Engineering 101.

C. E. 210. Properties of Soils. Credit 3 hours. Identification and classification of earth materials; hydraulic and mechanical properties of soils; character of natural soil deposits; and appraisal of methods of subsurface exploration. Laboratory determination of the index properties of soils. Prerequisite: Geology 150, Credit or registration in Theoretical and Applied Mechanics 221, and junior standing in engineering or architecture.

C. E. 214. Composition and Properties of Concrete. Credit 2 hours. Properties and uses of cements, aggregates, mixing water, and admixtures; composition and properties of concrete mixtures; field practices in the production of concrete. Laboratory practice in the design and control of quality concrete. Prerequisite: Theoretical and Applied Mechanics 223 or 224, and junior standing in engineering or architecture, or consent of instructor.

C. E. 215. Engineering and Construction Economy. Credit 3 hours. An introduction to engineering and construction economy; fundamentals of engineering and construction costs; engineering and construction economy studies; and mathematics of finance. Prerequisite: Junior standing.

C. E. 250. Hydrology and Engineering Hydraulics. Credit 3 hours. Precipitation and runoff; factors influencing stream yield; storm rainfall vs. storm runoff; rational and unit-hydrograph procedures; floods and droughts; frequency and deficiency analysis; ground water hydrology and hydraulics; storage equation; flow in open channels. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 232.

C. E. 261. Theory of Determinate Structures. Credit 3 hours. A study of the fundamental theory of statically determinate structures with applications to the evaluation of reactions, shears, and moments in beams and stresses in trusses for fixed and moving loads; introduction to deflection computations. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

C. E. 262. Theory of Indeterminate Structures. Credit 3 hours. A study of the fundamental theory of statically indeterminate structures with applications to the evaluation of deformations, reactions, shears, and moments in continuous structures. Prerequisite: Civil Engineering 261.

C. E. 263. Structural Design in Metals, I. Credit 4 hours. An introduction to the design of metal structures; behavior of members and their con-

nections; theoretical, experimental, and practice bases for proportioning members and connections. Prerequisite: Credit or registration in Civil Engineering 262; Theoretical and Applied Mechanics 224.

C. E. 264. Reinforced Concrete Design, I. Credit 3 hours. An introduction to the design of reinforced concrete structures; behavior of beams, columns, and frames; theoretical, experimental, and practical bases for proportioning members. Prerequisite: Civil Engineering 214; credit or registration in Civil Engineering 262; Theoretical and Applied Mechanics 224.

ECONOMICS

Econ. 100. Introduction to Business. Credit 3 hours. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only.

Econ. 102. Principles of Economics I. Credit 3 hours. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. Prerequisite: One year of college work.

Econ. 103. Principles of Economics II. Credit 3 hours. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. Prerequisite: Economics 102.

Econ. 108. Elements of Economics. Credit 3 hours. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. Prerequisite: One year of college work. Not open to those who have had Economics 102 or 103.

Econ. 136. American Economic History. Credit 3 hours. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. Open to freshmen and sophomores only.

Econ. 138. European Economic History. Credit 3 hours. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. Open to freshmen and sophomores only.

Econ. 170. Elements of Statistics. Credit 3 hours. Method of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credit for Psychology 135, Mathematics 161, or Economics 171. Prerequisite: Economics 102 or 108; Sophomore standing.

Econ. 214. Government Finance and Taxation. Credit 3 hours. A general survey of government finance at the federal, state, and local levels,

including government expenditures, principles of taxation, government borrowing and the national debt, fiscal policy, and intergovernmental fiscal relations. Prerequisite: Economics 102 and 103, or 108.

EDUCATION

Ed. 101. Nature of the Teaching Profession. Credit 2 hours. An orientation course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher.

Ed. 109. Educational Psychology. Credit 3 hours. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. Prerequisite: Psychology 100.

Ed. 201. Foundations of American Education. Credit 2 hours. A study of contemporary American public education in the setting of current American culture; confusions and issues with respect to the school program, its purposes, its content, its methods, and its organization are related to confusions and issues with respect to social, economic, and political purposes and organizations, both domestic and international. An attempt is made through the study of these relationships to clarify the contemporary social functions of the American school and teaching profession. Prerequisite: Psychology 100; Education 101.

ELECTRICAL ENGINEERING

E. E. 126. Electric Circuits and Fields. Credit 4 hours. Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. Prerequisite: Physics 107; Mathematics 143; credit or registration in Mathematics 345.

E. E. 220. Basic Electrical Engineering. Credit 3 hours. Fundamentals of electric and magnetic circuits and characteristics of electron tubes and circuits. Prerequisite: Physics 106 and 107; Mathematics 143.

ENGLISH

English 101. Introduction to Poetry. Credit 3 hours. Understanding of poetry through the reading and discussion of representative poems. Students with 95 or more credit hours receive only 2 hours credit. This course, plus English 102 and 103, satisfies the humanities requirement in general education.

English 102. Introduction to Drama. Credit 3 hours. Understanding of drama through the reading and discussion of representative plays. The reading list includes selections from Greek, Elizabethan, modern English, continental, and American drama. Students with 95 or more credit hours receive only 2 hours credit.

English 103. Introduction to Fiction. Credit 3 hours. Understanding of fiction through the reading and discussion of representative short stories and novels. The reading list includes Jane Austen's *Pride and Prejudice*, Dostoevski's *Crime and Punishment*, E. M. Forster's *A Passage to India* and others, and the anthology *Reading Modern Short Stories*. Students with 95 or more credit hours receive only 2 hours credit.

English 113. American Literature. Credit 3 hours. Classic American authors before the Civil War; an introduction to Franklin, Poe, Emerson, Hawthorne, Melville, Whitman, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 114. American Literature. Credit 3 hours. Classic American authors after the Civil War to the present; an introduction to Mark Twain, James, Dreiser, Hemingway, O'Neill, Frost, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 121. Chief English Writers Before 1800. Credit 3 hours. *Canterbury Tales, Utopia,* two plays by Shakespeare, *Paradise Lost, Gulliver's Travels, Tom Jones.* This course, with English 122, is the normal prerequisite to an English major. This course, plus English 122 and 123, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 122. Chief English Writers of the Nineteenth Century. Credit 3 hours. Wordsworth, Byron, Carlyle's *Past and Present,* Arnold's prose and poetry, FitzGerald's *The Rubaiyat of Omar Khayyam,* readings from T. H. Huxley, Browning's poems, and one novel. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 123. Chief Modern English Writers. Credit 3 hours. Conrad, Eliot, Joyce, Lawrence, Shaw, Yeats, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 131. Introduction to Shakespeare. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 225. English Literature from 1588 to 1660. Credit 3 hours. Survey of English literature of the Renaissance, Sidney, Marlow, Donne, Jonson, Herrick, Bacon, Burton, and other writers.

nglish 245. English Literature from 1688 to 1789. Credit 3 hours. Swift, Defoe, Steele, Addison, Dryden, Pope, Gray, Goldsmith, Johnson, etc.

nglish 255. Survey of American Literature from 1607 to the Civil War. Credit 3 hours. A comprehensive historical survey of American Literature and its cultural background from 1607 to the Civil War. Credit is not given for English 255 in addition to English 113.

INANCE

nance 250. Money, Credit, and Banking. Credit 3 hours. A study of the monetary and banking systems; the Federal Reserve System, price fluctuation, foreign exchange financing, and specialized financial institutions in the United States. Prerequisites: Economics 102 and 103, or 108.

FRENCH

French 101. Elementary French. Credit 4 hours. Grammar, pronunciation, reading of modern authors, composition, and conversation. For students who have no credit in French. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101 without French 102.

French 102. Elementary French. Credit 4 hours. Continuation of French 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: French 101 or one year of high school French.

French 103. Modern French. Credit 4 hours. Rapid reading of modern authors, syntax, and composition; some conversational practice. Prerequisite: French 102 or two years of high school French.

French 104. Modern French. Credit 4 hours. Continuation of French 103. Prerequisite: French 103 or three years of high school French.

French 113. Conversational Practice. Credit 1 hour. Oral practice for the development of elementary conversational skill and the improvement of pronunciation. Designed as a supplement to French 103 and 104, and open only to students concurrently enrolled in either French 103 or 104. Prerequisite: French 102 or two years of high school French.

French 201. Introduction to French Literature. Credit 3 hours. Prerequisite: French 104 or four years of high school French.

French 202. Introduction to French Literature. Credit 3 hours. Continuation of French 201. Prerequisite: French 104 or four years of high school French.

GENERAL ENGINEERING

G. E. 101. Engineering Graphical Communication. Credit 3 hours. Conveying ideas by means of freehand sketches; orthographic projection including auxiliary views; isometric and oblique projections; dimensioning, geometric and positional tolerancing; specification of materials; use of National Standards; charts and diagrams. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Plane geometry.

G. E. 102. Engineering Geometry. Credit 3 hours. Theory of projections; the analysis and synthesis of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, shades and shadows, perspective projection, and fundamentals of nomography. Prerequisite: Plane geometry; General Engineering 101.

G. E. 107. Architectural Projections. Credit 2 hours. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. Prerequisite: Plane geometry.

G. E. 108. Architectural Projections. Credit 2 hours. Shades and shadows; oblique, isometric, and perspective drawings; developments. Prerequisite: General Engineering 107.

G. E. 210. Industrial Production Illustration. Credit 3 hours. Mechanical and freehand drawings in axonometric, oblique, and perspective; shades and shadows; rendering of drawings with various media including some with the airbrush; industrial production illustration. Prerequisite: General Engineering 102, or 107 and 108.

G. E. 212. Graphical Calculation. Credit 1 hour. Use of various types of slide rules with special attention to the log-log scales; rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper, construction and use of nomographs or alignment charts. For students in engineering. Prerequisite: General Engineering 101 or equivalent; Mathematics 123.

G. E. 220. History of Engineering. Credit 3 hours. Study of the important elements in the growth of the art and science of engineering from ancient times to the present; lives of some of the men who have been leaders; effect of engineering on the social conditions of the various periods. Accepted as a social science humanities elective in all engineering curricula. Prerequisite: Junior standing.

GEOGRAPHY

Geog. 104. World Regional Geography. Credit 3 hours. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 105. Introductory Economic Geography. Credit 3 hours. Man's utilization of the major economic resources of the world from the standpoint of geographic patterns. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 107. Weather and Climate. Credit 4 hours. Planetary relations; the atmosphere, its composition, functions and behavior in the production of various weather types; air masses and air mass analysis; climatic types and climatic regions; application to present day activities. This course and Geography 108 meet the general education requirements in physical sciences in Liberal Arts and Sciences.

Geog. 108. Landforms and Earth Resources. Credit 4 hours. The study of landforms from the geographic point of view; maps and their use; earth resources (native vegetation, soils, water resources, mineral resources); their development and utilization. This course and Geography 107 meet the general education requirements in physical sciences in Liberal Arts and Sciences.

Geog. 114. Conservation of Natural Resources. Credit 3 hours. Elements of the conservation of natural resources (soils, water, biotic, mineral, recreational) with special emphasis given to the general principles of conservation as they apply to the United States. Prerequisite: Sophomore standing.

Geog. 123. Geography of Illinois. Credit 3 hours. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. Prerequisite: One course in Geography or consent of instructor.

Geog. 386. Political Geography. Credit 3 hours. World patterns of nations in relation to their natural environmental backgrounds: European nations; Africa, the exploited continent; national structures in Asia; western hemisphere nations.

GEOLOGY

Geol. 101. Physical Geology. Credit 4 hours. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. Geology 101 and 102 meet the general education requirement in the physical sciences in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Geol. 102. Historical Geology. Credit 4 hours. Evolution of the earth and its life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Geology 101 or equivalent. This course, with Geology 102, meets the physical sciences requirement in Liberal Arts and Sciences.

Geol. 110. Field Work. Credit 2 hours. Field observation in St. Francois Mountains and adjacent parts of Missouri and Illinois. (During spring vacation.) Two three-hour class meetings to be arranged. Credit is given only on completion of a satisfactory written report. Prerequisite: Geology 101, 150, or Physical Science 102.

Geol. 131. Mineralogy. Credit 4 hours. A systematic study of minerals. The nature of minerals as crystalline materials, and their geologic relations are emphasized. Crystal models, crystals, and the common nonsilicate minerals are studied in the laboratory. Lecture and laboratory. Prerequisite: One semester of college chemistry.

Geol. 132. Mineralogy. Credit 4 hours. A systematic study of minerals and rocks. The geologic relationships of minerals and rocks are emphasized. The common silicate minerals and the important varieties of rocks are studied in the laboratory. Lecture and laboratory. Prerequisite: Geology 131.

Geol. 150. Geology for Engineers. Credit 3 hours. Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

German 101. Elementary German. Credit 4 hours. Oral practice, reading and grammar for beginners. Not open to students who have high school credit in this language. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102.

German 102. Elementary German. Credit 4 hours. Continuation of German 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German.

German 103. Intermediate German. Credit 4 hours. Modern narrative prose. Oral practice and sight reading. Prerequisite: German 102, two years of high school German, or equivalent.

German 104. Intermediate German. Credit 4 hours. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. Prerequisite: German 103, three years of high school German, or equivalent.

German 113. Practice in Conversation. Credit 2 hours. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104.

German 210. Masterpieces of German literature. Credit 3 hours. Introduction to German literature, in subjects, forms, and ideals. Prerequisite: Two years of college German, or equivalent.

German 211. Conversation and Writing. Credit 3 hours. Prerequisite: German 104, or German 103 and 113 or equivalent.

German 252. Modern German Drama. Credit 3 hours. A study of the drama of the nineteenth and twentieth centuries, its relation to the Greek drama and world drama. Prerequisite: German 210 or equivalent.

HISTORY

Hist. 111. History of Western Civilization to 1815. Credit 4 hours. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the social science requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 112. History of Western Civilization from 1815 to the Present. Credit 4 hours. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 131. History of England to 1714. Credit 4 hours. A survey of the political and constitutional, social and economic, church and cultural, and imperial history of the British people from the beginning of English history through 1714. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 132. History of England from 1714 to the Present. Credit 4 hours. A survey of the political and constitutional, social and economic, diplomatic and imperial, and cultural history of the British people from 1714 to the present. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 151. History of the United States to 1865. Credit 4 hours. Colonial foundations, movement for independence, early years of the Republic. This course with History 152 meets the social science requirement in Liberal Arts and Sciences.

Hist. 152. History of the United States from 1865 to the Present. Credit 4 hours. A century of national life and organization. This course with History 151 meets the social science requirement in Liberal Arts and Sciences.

Hist. 181. The Ancient World. Credit 3 hours. Ancient empires and Greece. Prerequisite: Sophomore standing.

Hist. 182. The Ancient World. Credit 3 hours. Rome. Prerequisite: Sophomore standing.

Hist. 369. Constitutional Development of the United States to 1865. Credit 3 hours. Prerequisite: one year in college of United States or English History or one year of Political Science.

Hist. 370. Constitutional Development of the United States since 1865. Credit 3 hours. Prerequisite: one year in college of United States or English History or one year of Political Science.

HUMANITIES

Humanities 101. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities.

Humanities 102. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature and classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 102 in addition to English 101, 102, or 103. Prerequisite: Humanities 101.

Humanities 151. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World on the topics of man's fate and his personal adjustment to life. This course, plus Humanities 152, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing.

Humanities 152. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World in relation to the state and society. This course, plus Humanities 151, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing.

HYGIENE

Hygiene 104. Personal and Community Hygiene. Credit 2 hours. This course covers basic principles of hygiene. Especially recommended for those going into teaching, occupational therapy, social work, etc. Students with 95 or more credit hours receive only 1 hour credit.

Hygiene 110. Public Health. Credit 2 hours. Material presented deals with information about community public health problems and the program designed to prevent disease and promote health education. This is

especially valuable for all people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

MANAGEMENT

Management 101. Industrial Organization and Management. Credit 3 hours. Organization plans, administrative policies, and management problems with special attention to manufacturing units. Prequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

Management 248. Personnel Administration. Credit 3 hours. A study of the foundations, functions, and objectives of personnel administration: history; contributions of various disciplines; company and union attitudes; organizational aspects; policies and procedures; union-management relationships; records and reports; personnel research. Prerequisite: Economics 102 or 108.

MARKETING

Marketing 101. Principles of Marketing. Credit 3 hours. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

Marketing 211. Principles of Retailing. Credit 3 hours. The fundamentals of buying, sales promotion, pricing, control, and store finance. Prerequisite: Marketing 101.

MATHEMATICS

Math. 102. Basic Mathematics. Credit 3 hours. Continuation of Mathematics 101. Prerequisite: Mathematics 101.

Math. 103. Introduction to College Algebra. Credit 3 hours. Fundamental operations, simple equations, factoring, fractions, exponents, radicals, linear equations in more than one variable, graphing, quadratic equations in one unknown. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

Math. 109. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. Prerequisite: Consent of the department.

Math. 110. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. Prerequisite: Mathematics 109.

Math. 111. Algebra. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Required for students in Architecture deficient in algebra. Other students admitted only by consent of their college office and the Mathematics Department. Prerequisite: Entrance algebra, 1 unit and plane geometry, 1 unit.

Math. 112. College Algebra. Credit 3 hours. Theory of quadratic equations, progressions, binomial theorem, permutations, combinations, determinants, introduction to the theory of equations, logarithms. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 114. Plane Trigonometry. Credit 2 hours. Identities, equations, addition formulas and derived relations, solution of right and oblique triangles, radian measure, inverse functions. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

Math. 120. Introduction to Modern Mathematics. Credit 3 hours. This course introduces abstract mathematical thinking. It covers the basic elementary properties of sets and introduces groups, rings, and fields as typical examples of frequently used mathematical systems. The categorical properties of special sets of numbers are considered. Emphasis is placed on modern topics and the modern approach to classical topics. Prerequisite: Math. 123 or consent of instructor.

Math. 123. Analytic Geometry. Credit 5 hours. Geometrical properties of curves and surfaces, coordinate systems, translation and rotation of axes, higher plane curves, parametric equations. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 111 or 112, and 114.

Math. 133. Calculus. Credit 3 hours. First course for students of mathematics and engineering. Theory of limits, differentiation and integration of standard algebraic and trigonometric forms, applications. Prerequisite: Mathematics 123.

Math. 143. Calculus. Credit 5 hours. Second course for students of mathematics and engineering. The definite integral, integration of rational fractions, integration by parts, series and expansion of functions, hyperbolic functions, partial differentiation, multiple integrals, applications. Prerequisite: Mathematics 133.

Math. 161. Statistics. Credit 3 hours. An elementary course in the basic concepts of probability and statistics, arrangement and analysis of raw data, hypothesis testing, confidence limits and method of least squares. Prerequisite: Mathematics 112; sophomore standing.

Math. 263. Statistics in Engineering and Physical Sciences. Credit 3 hours. A first course in the use of statistical methods for interpreting the results of experiments. Applications to engineering and the physical sciences are emphasized. Prerequisite: One year of calculus.

Math. 315. Linear Transformations and Matrices. Credit 3 hours. A survey course in elementary matrix algebra, covering vector space, linear transformations, representation of transformations by matrices. Prerequisite: One year of calculus.

Math 341. Differential Equations. Credit 3 hours. An introductory course to ordinary differential equations and their applications to physical problems. First and second order equations, linear equations, solutions in series form, operator methods in linear equations. This course is intended for students who wish to go on to a study of partial differential equations in Mathematics 342. Prerequisite: One year of calculus.

Math. 342. Differential Equations. Credit 3 hours. An introductory course to partial differential equations, boundary value problems and Fourier series. Also considered are orthogonal functions, Fourier integrals, Bessel functions, applications to physical problems. Prerequisite: Mathematics 341.

Math. 343. Advanced Calculus. Credit 3 hours. The course includes the vector calculus, differential and integral calculus of functions of several variables, infinite series, power series, and line and surface integrals. Prerequisite: One year of calculus.

Math. 345. Differential Equations and Orthogonal Functions. Credit 3 hours. Theory of solving the standard elementary differential equations and application of these. Power series, solutions of second order equations and operational methods are included. A brief introduction is given to partial differential equations and Fourier series methods. Prerequisite: One year of calculus.

Math. 346. Complex Variables and Applications. Credit 3 hours. Theory and application of complex variables. Complex numbers, analytic functions, integrals, power series, residues and poles, conformal mapping. Prerequisite: Mathematics 343.

MECHANICAL ENGINEERING

M. E. 182. Manufacturing Processes. Credit 3 hours. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. Prerequisite: General Engineering 101, sophomore standing.

M. E. 183. Materials Casting. Credit 3 hours. Casting as a process of fabrication; the molding process including machine molding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. Prerequisite: General Engineering 101; sophomore standing.

M. E. 184. Metal Processing. Credit 3 hours. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. Prerequisite: General Engineering 101; credit or registration in Integral Calculus and Physics 107.

M. E. 209. Thermodynamics and Heat Transfer. Credit 3 hours. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles and processes involving transfers of mass

and energy. Basic laws of heat transfer. Prerequisite: Physics 107, Mathematics 142 or 143.

M. E. 221. Mechanics of Machinery. Credit 5 hours. Linkages, cams, and gears; belts, ropes, and chains; velocities, accelerations, and inertia forces in machines; vibrations and critical speeds; balancing of engines; principle of the gyroscope. Prerequisite: T.A.M. 156 or registration in Theoretical and Applied Mechanics 211.

MILITARY SCIENCE AND TACTICS

Mil. Sci. 101. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Organization of the Army and ROTC; individual weapons and marksmanship; military history, and leadership, drill and command. Prerequisite: Military Science department approval.

Mil. Sci. 102. Freshman Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: American military history, and leadership, drill, and command. Prerequisite: Military Science department approval.

Mil. Sci. 103. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Map and aerial photographs; the U. S. Army and National Security; and leadership, drill, and command. Prerequisite: Military Science 102 or equivalent.

Mil. Sci. 104. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Basic Tactics; communications, and leadership, drill, and command. Prerequisite: Military Science 103 or equivalent.

MUSIC

Music 100. Rudiments of Theory. Credit 2 hours. Notation, scales, intervals, chords, terminology.

Music 130. Introduction to the Art of Music, I. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only.

Music 131. Introduction to the Art of Music, II. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only.

Music 150. Music Ensemble. Credit ½ hour. Band, Orchestra, Chorus. Admission by consent of director. This course may be repeated to earn a maximum of 2 semester hours of credit.

PHILOSOPHY

Phil. 101. Introduction to Philosophy. Credit 3 hours. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture.

Phil. 101, 102, 105 form an approved humanities sequence in Liberal Arts and Sciences. Credit 3 hours. Prerequisite: Sophomore standing.

Phil. 102. Logic. Credit 3 hours. Reasoning, detection of fallacies, evidence. Prerequisite: Sophomore standing.

Phil. 105. Moral Ideas and Practice. Credit 2 Hours. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

Phil. 303. History of Greek and Roman Philosophy. Credit 4 hours. The teachings of the philosophers who figure most prominently in the Greek and Roman era—approximately the period from the sixth century B.C. to the fourth century A.D. Prerequisite: Junior standing or consent of instructor. This course, together with Phil. 306, fulfills the General Education requirement in Humanities.

Phil. 306. History of Modern Philosophy. Credit 4 hours. Developments in philosophy from the sixteenth to the nineteenth century; what prominent philosophers have contributed to man's understanding of himself and his environment. Prerequisite: Junior standing or consent of instructor. This course, together with Philosophy 303, fulfills General Education requirements in Humanities.

PHYSICAL EDUCATION FOR MEN

P. E. M. 101, 102, 103, 104. Prescribed Exercises. Credit 1 hour. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P. E. M. 101. Students enrolling for the second, third, or fourth time should register for P. E. M. 102, 103, 104, respectively.

P. E. M. 106. Developmental Activities. Credit 1 hour. Activities that contribute to the development and maintenance of physical fitness according to social and hygenic standards.

P. E. M. 107. Beginning Swimming. Credit 1 hour. For nonswimmers (inability to swim 100 yards). Students must have 8:00 and 9:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 109. Advanced Swimming. Credit 1 hour. For swimmers (ability to swim at least 100 yards). Student must have 8:00, 9:00 and 10:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 112. Individual Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 113. Double Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 114. Apparatus Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 117. Boxing. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 118. Wrestling. Credit 1 hour. Skill, knowledge, attitudes, and con ditions.

P. E. M. 120. Personal Defense Activities. Credit 1 hour. Skills, knowledge attitudes and conditions.

P. E. M. 122. Individual Athletics. Credit 1 hour. Skills, knowledge, atti tudes and conditions.

P. E. M. 123. Weight Lifting. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 129. Volleyball. Credit 1 hour. Skills, knowledge, attitudes, an conditions.

P. E. M. 130. Basketball. Credit 1 hour. Skills, knowledge, attitudes, an conditions.

P. E. M. 132. Archery. Credit 1 hour. Skills, knowledge, attitudes, and con ditions.

P. E. M. 136. Badminton. Credit 1 hour. Skills, knowledge, attitudes, an conditions.

P. E. M. 139. Backyard Sports. Credit 1 hour. Skills, knowledge, and condi tions.

P. E. M. 140. Boating and Fishing. Credit 1 hour. Prerequisite: Two hour of credit in physical education and a score on the physical fitness tes that allows the student a free choice of activities or approval of th Director of Physical Education. Students must furnish their own per sonal equipment, but should purchase no equipment until after the firs meeting of the class. Boats, canoes, life jackets will be furnished.

P. E. M. 142. Ballroom Dance. Credit 1 hour.

P. E. M. 143. American Square Dance. Credit 1 hour.

P. E. M. 150. Professional Orientation. Credit 2 hours. Introduction to th fields of physical education, athletics, health, safety, recreation. Fo physical education majors.

P. E. M. 151. Beginning Basketball. Credit 2 hours. Introductory skills, rule and strategy. For physical education majors.

P. E. M. 152. Beginning Football. Credit 2 hours. Introductory skills, rule and strategy. For physical education majors.

P. E. M. 153. Fitness Programs. Credit 2 hours. Physical fitness tests calisthenics, medicine ball, bulldozer, grass, all-out and locomotor ex ercises; leadership techniques. For physical education majors. To b taken with P.E.M. 154.

P. E. M. 154. Swimming. Credit 2 hours. Crawl, back, breast, and side strokes; diving; life saving. To be taken with P.E.M. 153. For physical education major.

P. E. M. 155. Gymnastics. Credit 1 hour. Tumbling, apparatus stunts. To be taken with P.E.M. 156. For physical education majors.

P. E. M. 156. Wrestling. Credit 1 hour. Skills, rules. To be taken with P.E.M. 155. For physical education majors.

P. E. M. 157. Track and Field. Credit 1 hour. Track events, field events. To be taken with P.E.M. 158. For physical education majors.

P. E. M. 158. Baseball. Credit 1 hour. Baseball skills, rules. To be taken with P.E.M. 157. For physical education majors.

P. E. M. 209. History of Sports. Credit 3 hours. Development of sports and physical education in Europe and United States since 1750. For physical education majors only.

RECREATION

Recreation 170. Outdoor Recreational Sports. Credit 2 hours. Soccer, touch football, volleyball, softball, speedball.

Recreation 171. Indoor Recreational Sports. Credit 2 hours. Badminton, handball, paddle tennis, squash, racquets, table tennis, weight lifting.

Recreation 174. Camp Counseling. Credit 3 hours. Objectives, administration, techniques, activity programs, evaluation.

Recreation 176. Principles of Recreation. Credit 3 hours. History of leisure and recreation; concepts of play and recreation; major recreation agencies.

PHYSICAL EDUCATION FOR WOMEN

P. E. W. 100. Conditioning Activities. Credit 1 hour. Foundation course offering activities for the maintenance and improvement of physical fitness.

P. E. W. 102. Modified Activities. Credit 1 hour. Prescribed recreational sports, relaxation, and exercise. Prerequisite: Recommendation from the Department of Health Service.

P. E. W. 105. Elementary Rhythms. Credit 1 hour. Beginning techniques in the field of dance..

P. E. W. 106. Intermediate Rhythms. Credit 1 hour. Intermediate dance techniques, solo and group dance compositions. Prerequisite: Physical Education for Women 105 or consent of instructor.

P. E. W. 110. Elementary Swimming. Credit 1 hour. A beginning course for those with little aquatic experience.

P. E. W. 111. Sub-intermediate Swimming. Credit 1 hour. For those whose skill is not sufficient to permit registration in Intermediate Swimming.

P. E. W. 122. Speedball—Volleyball. Credit 1 hour. A fast out-of-doors sport combined with indoor volleyball.

P. E. W. 123. Basketball. Credit 1 hour.

P. E. W. 124. Volleyball. Credit 1 hour.

P. E. W. 125. Softball. Credit 1 hour.

P. E. W. 130. Badminton. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 131. Golf. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 132. Bowling. Credit 1 hour.

P. E. W. 135. Archery. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 136. Tennis. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 140. Boating and Fishing. Credit 1 hour. Open to students who have completed two semesters of physical education, or consent of instructor.

P. E. W. 141. Tumbling and Apparatus Stunts. Credit 1 hour. The side horse, parallel bars, stall bars, buck, etc., are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used.

P. E. W. 142. Ballroom Dance. Credit 1 hour.

P. E. W. 143. American Square Dance. Credit 1 hour.

P. E. W. 144. Elementary Folk Dance. Credit 1 hour.

P. E. W. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, health, safety, recreation and dance.

P. E. W. 151. Body Mechanics, Gymnastics and Hockey. Credit 1 hour. Skill in fundamental body movements, posture and physical conditioning. For physical education majors.

P. E. W. 152. Volleyball and Softball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

P. E. W. 153. Hockey, Soccer and Basketball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

P. E. W. 154. Tumbling and Tennis. Credit 1 hour. Skills, stunts, trampoline; tennis skills, rules, tactics.

P. E. W. 166. Elementary School Games. Credit 2 hours. Games for classroom, playground, and gymnasium; programs, lesson planning, source materials. For physical education majors.

P. E. W. 201. Badminton, Archery, Track and Field. Credit 1 hour. Skills, rules and tactics.

DANCE

Dance 160. Beginning Contemporary Dance. Credit 1 hour. For physical education majors.

Dance 235. Folk, Square and Social Dance. Credit 2 hours. Designed for men and women students majoring in physical education, recreation and dance. Methods of teaching and directing ballroom, folk and American square dances in school and community groups with emphasis on organization and leadership.

Dance 236. Folk Dance. Credit 1 hour. Designed for men and women students majoring in physical education, recreation and dance. Typical English and European folk dances with emphasis upon teaching and directing of school and community groups.

HEALTH EDUCATION

H. E. 281. First Aid. Credit 2 hours. Red Cross course in first aid.

PHYSICAL SCIENCE

Phys. Sci. 101. Introduction to the Physical Sciences. Credit 4 hours. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Two units of high school mathematics or consent of the department.

Phys. Sci. 102. Introduction to the Physical Sciences. Credit 4 hours. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics

or geology. Students with 95 or more credit hours receive only 3 hour credit. Prerequisite: Physical Science 101, or Division of General Studies 141.

PHYSICS

Physics 101. General Physics (Mechanics, Heat, Sound). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite. Trigonometry.

Physics 102. General Physics (Electricity, Magnetism, Light, and Modern Physics). Credit 5 hours. Lectures with demonstrations, recitations and laboratory. For students in arts and sciences, and architecture. Prerequisite: Physics 101.

Physics 106. General Physics (Mechanics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, Mathematics, physics, and chemistry. Prerequisite: Credit or registration in mathematics 133.

Physics 107. General Physics (Heat, Electricity, Magnetism). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Physics 106; credit or registration in Mathematics 143.

Physics 108. General Physics (Sound, Light, Modern Physics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Credit or registration in Physics 107 and Mathematics 143.

Physics 321. Theoretical Mechanics. Credit 4 hours. Laws of motion, vectors, statics, energy and momentum principles for a particle and for systems of particles, motion of a particle under constant forces, plane motion of a rigid body, simple harmonic motion and resonance, impact. Prerequisite: General Physics and Calculus.

Physics 322. Theoretical Mechanics. Credit 4 hours. Continuation of Physics 321. Motion of a particle under a variable force, central field motion, accelerated reference systems, motion of a particle subject to constraints, rotation of a rigid body in three dimensions, vibrating systems and normal coordinates, generalized coordinates. Prerequisite: Physics 321.

Physics 341. Electricity and Magnetism. Credit 4 hours. Lectures, problems and laboratory. This course is fundamental to advanced courses and should be elected as early as possible by those intending to specialize in physics. Fundamental laws logically developed and summarized in Maxwell's equations. Forces and energies associated with electric and magnetic properties of matter. Generation and propagation of electromagnetic waves. Prerequisite: General Physics and Calculus; Registration in Math. 341, 343 or 345.

Physics 342. Electricity and Magnetism. Credit 4 hours. Continuation of Physics 341. Boundary conditions and special methods in boundary value problems; interpretation of dielectric and magnetic properties of matter from the point of view of atomic and crystalline properties; use of complex notation in circuit problems; coupled circuits; nonlinear circuits; transmission lines; radiation from antennas; transmission and reflection of electromagnetic waves. Prerequisite: Physics 341.

Physics 360. Thermodynamics. Credit 4 hours. The first, second, and third laws of thermodynamics; the properties of the entropy, enthalpy, free energy, and internal energy functions; reversible and irreversible processes; applications to homogeneous and hetrogeneous systems; chemical reactions and the mass action law. Prerequisite: General Physics and Calculus.

Physics 362. Kinetic Theory and Statistics. Credit 3 hours. A lecture and problem course presenting the fundamentals of kinetic theory and an elementary introduction to statistical mechanics. Topics covered include equations of state, the distribution law, viscosity, thermal conduction, diffusion, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics and applications. Applications are discussed. Prerequisite: Physics 360 or consent of instructor.

Physics 381. Atomic Physics. Credit 4 hours. A lecture and problem course presenting our modern knowledge of the nature and properties of electrons, light quanta, atoms, and molecules. Topics include the atomic nature of matter, the properties of free electrons, photons and their interaction with matter, atomic spectra and structure, molecular spectra and structure, an introduction to the ideas of quantum mechanics, binding in molecules and crystals, and an introduction to some solid state phenomena. Prerequisite: General Physics and Calculus.

Physics 382. Nuclear Physics. Credit 3 hours. A lecture and problem course presenting our modern knowledge of the properties of nuclear particles, natural and artificial radioactivity, laboratory equipment for producing and studying high energy particles, nuclear disintegration, the interaction of nuclear particles with each other and with matter, cosmic rays, mesons and recent developments in high energy nuclear physics, and the application of nuclear phenomena to some practical problems. Prerequisite: Physics 381.

Physics 383. Atomic Physics and Quantum Theory for Engineers. Credit 3 hours. Introduces the student to the basic concepts of quantum theory which underlie modern theories of the properties of materials. Topics covered include elements of atomic and nuclear theory, kinetic and statistical theory, experimental basis of quantum theory, Schrodinger's equation and simple applications, atomic spectra and atomic structure, quantum states of molecules, band theory of solids, and quantum statistics. Lectures and problems. Prerequisite: General physics; general chemistry; Mathematics 345 or equivalent.

POLITICAL SCIENCE

Pol. Sci. 103. Introduction to Political Science. Credit 3 hours. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: Scope and method of political science, constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy.

Pol. Sci. 150. American Government: Organization and Powers. Credit 3 hours. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments in state and nation. Prerequisite: Sophomore standing.

Pol. Sci. 151. American Government: Functions. Credit 3 hours. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power, regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

Pol. Sci. 381. American Foreign Relations. Credit 3 hours. Participation in international affairs; presidential initiative; development and organization of the Department of State; diplomatic intercourse; consular service; treaty-making power; development of foreign policy and its application to areas of major interest. Prerequisite: Six hours of political science or history.

Pol. Sci. 384. International Relations. Credit 3 hours. An examination of the nature of the national state system, of the forces affecting international relations, of the sources of conflicts in international politics, and of their solution. Prerequisite: Six hours of political science or history.

PSYCHOLOGY

Psych. 100. Introduction to Psychology. Credit 4 hours. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. Prerequisite: Second semester freshman standing.

Psych. 125. An Introduction to the Fields of Psychology. Credit 4 hours. An introduction to the basic fields of psychology, including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal and physiological psychology. Students taking this course may not take Psychology 220 at the Urbana campus for credit. Prerequisite: Psychology 100, or equivalent, or junior standing.

Psych. 135. Statistical Methods in Psychology. Credit 3 hours. Application of elementary statistical methods to psychological data. No credit for this course will be given to students who receive credit for Economics 170 or Mathematics 161. Prerequisite: Psychology 100.

Psych. 145. Industrial Psychology. Credit 3 hours. A consideration of socio-psychological principles of behavior in business and industry and of the scientific methods of investigation in this area, and a survey of specific methods of personnel technology. Credit is not given for both Psych, 145 and Psych. 245 at Urbana. Prerequisite: Psychology 100.

Psych. 150. Personality and Human Relations. Credit 3 hours. An introduction to the study of personality in relationship to the social environment. Application of psychological principles to social problems. Prerequisite: Psychology 100 or equivalent.

RHETORIC

Rhetoric 101. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit.

Rhetoric 102. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

Rhetoric 133. Principles of Composition. Credit 3 hours. Practice in exposition with emphasis on organization, paragraphing and sentence structure. For the student whose career requires competence in writing clear, precise prose as an adjunct to other professional activity. Credit is not given for Rhetoric 133 in addition to Rhetoric 143. Prerequisite: Rhetoric 102 or equivalent.

Rhetoric 143. Intermediate Expository Writing. Credit 3 hours. Practice in expository types, with emphasis on style and critical analysis. Recommended for rhetoric majors. Credit is not given for Rhetoric 143 in addition to Rhetoric 133. Prerequisite: a grade of "A" or "B" in Rhetoric 102 or consent of instructor.

Rhetoric 144. Narrative Writing. Credit 3 hours. Practice in description, narrative sketches, stories. Prerequisite: Rhetoric 101 and 102; sophomore standing.

Rhetoric 151. Business Letter Writing. Credit 3 hours. Study of the correspondent's problems in business and practice in writing letters, with emphasis on organization, persuasion, and presentation from the reader's point of view. For the student whose career will require competence in writing letters. Prerequisite: Rhetoric 101 and 102.

Rhetoric 246. Modern English Grammar. Credit 3 hours. Definition and meaning; the use of dictionaries, grammars; a survey of syntax, etc. Prerequisite: Junior standing.

RHETORIC FOR FOREIGN STUDENTS

(See also Speech for Foreign Students)

Rhetoric 103. English as a Foreign Language. No credit. An intensive review course in basic English structure for foreign students who are inadequately prepared for Rhetoric 101. Prerequisite: Reading knowledge of English and ability to understand instructions.

Rhetoric 104. English as a Foreign Language. No credit. A continuation of Rhetoric 103. A rapid and intensive review of basic English structure and a study of more complicated sentence patterns with practice in oral and written composition, designed for students who may be inadequately prepared for Rhetoric 101. Prerequisite: Rhetoric 103 or consent of instructor.

Rhetoric 105. English as a Foreign Language. No credit. Intensive writing practice, designed to remedy the foreign student's problems in the area of his special difficulties. May be taken concurrently with Rhetoric 101. Prerequisite: Rhetoric 104 or consent of instructor.

SOCIAL SCIENCES

Soc. Sci. 111. The Individual in Society. Credit 4 hours. A general education course designed to equip the beginning student with an understanding

of the nature and the role of the individual as a member of the several groupings of his social community. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 113. World Patterns and World Problems. Credit 4 hours. A general education course designed to bring the student to an understanding of the geographic, economic, an political bases of the present world situation. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 116. Family Living. Credit 4 hours. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. Prerequisite: Sophomore standing or consent of instructor.

SOCIOLOGY

Sociol. 100. Introduction to Sociology. Credit 3 hours. Introductory analysis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. Prerequisite: Sophomore standing.

Sociol. 130. Society and Individual Development. Credit 3 hours. Nature of person and relation to institutions, social order, and development. Prerequisite: Sociology 100.

Sociol. 131. Social Problems. Credit 3 hours. Introductory survey of sociological aspects of chief modern social problems, stressing the social interrelationships and culture conflicts involved in their genesis, significance, and amelioration or prevention. (The nature and the treatment of such community problems as crime, juvenile delinquency, race, old age, physical and mental health, recreation and leisure, etc., will be considered in this course.) Prerequisite: Three hours of sociology or eight hours of social science.

Sociol. 270. Population and Human Ecology. Credit 3 hours. Population in relation to resources; concentration and dispersion of people; population facts and theories; cultural and demographic factors in population replacement; structural and spatial distribution and movement of population and theories of human ecology. Designed primarily for students in sociology, geography, economics, biology (premedicine), political science, history and education. Prerequisite: Sociology 100 or consent of instructor; junior standing.

Sociol. 276. Sociology of the City. Credit 3 hours. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

SPANISH

Spanish 101. Elementary Spanish. Credit 4 hours. For students who have no credit in Spanish. Students with 95 or more credit hours receive only

3 hours credit. No credit toward graduation is given for Spanish 101 without 102.

Spanish 102. Elementary Spanish. Credit 4 hours. Continuation of Spanish 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish.

Spanish 103. Intermediate Spanish. Credit 4 hours. Rapid reading, review of grammar, composition, conversation. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 104. Intermediate Spanish. Credit 4 hours. Continuation of Spanish 103. Prerequisite: Spanish 103 or three years of high school Spanish.

Spanish 113. Elementary Composition and Conversation. Credit 2 hours. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 114. Elementary Composition and Conversation. Credit 2 hours. May be taken concurrently with Spanish 104. Does not count toward the major in Spanish. Prerequisite: Spanish 113 or equivalent.

Spanish 201. Introduction to Spanish Literature. Credit 3 hours. Reading of representative authors of Spain. Prerequisite: Spanish 104 or four years of high school Spanish.

Spanish 202. Introduction to Spanish American Literature. Credit 3 hours. Reading of representative authors of Spanish America. Prerequisite: Spanish 104 or four years of high school Spanish.

SPEECH

Group Remedial Speech. No credit. Students with articulatory problems, particularly those with foreign dialects, may register for this course at the Student Counseling Service, Room 303, in advance of the dates specified. Prerequisite: Consent of the instructor.

Speech 101. Principles of Effective Speaking. Credit 3 hours. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

Speech 105. Voice and Articulation. Credit 2 hours. A drill course for the improvement of the normal speaking voice. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Speech 107. Parliamentary Procedure. Credit 2 hours. Principles and practice of parliamentary procedure. Students with 95 or more credit hours receive only 1 hour credit.

Speech 111. Business and Professional Speaking. Credit 2 hours. Study, preparation, and presentation of the chief types of business speeches, with special attention to conferences, sales talks, interviews, job applications. Credit 2 hours. Prerequisite: Speech 101; sophomore standing.

Speech 113. Group Discussion and Conference Leadership. Credit 3 hours. Study of leadership, group process, and interpersonal relations in the small group, conference, and the public forum, with emphasis on practice in leading and participating in various types of public discussion and conference, with materials drawn from current public questions. Prerequisite: Sophomore standing.

Speech 121. Advanced Public Speaking: The Logical Bases of Discourse. Credit 3 hours. Study of the theory of argument, e.g., evidence, reasoning, and construction of briefs; practice in formal and informal forms of debate and public discourse on current public questions. Prerequisite: Speech 101; sophomore standing.

Speech 141. Oral Interpretation of Literature. Credit 3 hours. Principles of interpretation, analysis, and oral reading of prose literature, dramatic literature, and verse. Students with 95 or more credit hours receive only 2 hours credit.

Speech 161. Fundamentals of Acting. Credit 3 hours. A study of the method of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. Prerequisite: Credit or concurrent registration in Speech 141.

Speech 164. Radio Speaking. Credit 2 hours. Preparation and presentation of the chief types of radio speeches, and of the interview, round table and discussion; microphone experience. Prerequisite: Consent of instructor.

Speech 221. Advanced Public Speaking: The Psychological Bases of Discourse. Credit 3 hours. Study of the processes of motivation as applied to speeches intended to influence group opinion and action; practice in the preparation and delivery of short persuasive speeches. Prerequisite: Speech 101; junior standing.

SPEECH FOR FOREIGN STUDENTS

(See also Rhetoric for Foreign Students.)

Speech 103. Speech for Foreign Students. No credit. A study of the sound and intonation patterns of American English and the relation of sound to spelling, including drill sessions designed to improve the student's ability to speak and understand English at normal conversational speed. Prerequisite: Reading knowledge of English and ability to understand instructions.

Speech 104. Speech for Foreign Students. No credit. Pronunciation of English for students whose native language is not English. A study of the sounds and intonation patterns of American English, designed to improve the student's ability to speak at a normal conversational speed. Course deals with material in pronunciation similar to Speech 103 but is designed for more advanced students. Prerequisite: Speech 103 or consent of the instructor.

STUDENT COUNSELING SERVICE

(Group Offerings in Academic Achievement and Career Planning.)

S. C. S. 101. Reading Improvement. No Credit. For students who wish to increase their rate of reading or to improve their vocabulary and comprehension skills.

S. C. S. 102. Study Skills Improvement. No credit. For students who need to develop more effective methods of study. Practice in studying reference materials competently, improving concentration, taking meaningful notes, and preparing for examinations.

S. C. S. 103. Vocabulary Development. No credit. For students who need assistance in the development of language skills. Discussions on the use of vocabulary in thinking and communication. Practical exercises in vocabulary building.

S. C. S. 104. Career Planning. No credit. For students who wish to clarify their vocational goals. Focuses on a self-evaluation of abilities, interests, and personal needs as bearing on occupational choice.

THEORETICAL AND APPLIED MECHANICS

T. A. M. 150. Analytical Mechanics (Statics). Credit 2 hours. Resultants of force systems, algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of trusses, frames, etc.; forces due to friction; centroids. Prerequisite: Physics 101 or 106; registration in Mathematics 143.

T. A. M. 151. Analytical Mechanics (Statics). Credit 3 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for force systems, moment diagrams, virtual work, forces due to friction, centroids. Prerequisite: Physics 106; registration in Mathematics 143.

T. A. M. 154. Analytical Mechanics (Statics and Dynamics). Credit 4 hours. A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students. Prerequisite: Physics 106; Registration in Mathematics 143.

T. A. M. 156. Analytical Mechanics (Statics and Dynamics). Credit 5 hours. A combination of Theoretical and Applied Mechanics 150 and 211. Prerequisite: Physics 106; Registration in Mathematics 143.

T. A. M. 171. Elements of Mechanics (Statics). Credit 3 hours. Resultants and equilibrium of force systems; conditions of equilibrium appiled to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. Prerequisite: Mathematics 123.

T. A. M. 172. Strength of Materials. Credit 3 hours. Relationships between external forces acting on beams and the stresses produced; shear, moment, slope and deflection diagrams; moment of inertia; columns. For architects only. Prerequisite: Theoretical and Applied Mechanics 171.

T. A. M. 211. Analytical Mechanics (Dynamics). Credit 3 hours. Displacement, velocity, and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, impulse and momentum. Prerequisite: Theoretical and Applied Mechanics 150 or 151; Mathematics 143.

T. A. M. 221. Elementary Mechanics of Deformable Bodies. Credit 3 hour Elastic and inelastic relationships between external forces (loads acting on deformable bodies and the stresses and deformations pro duced; tension and compression members; members subjected to torsio and to bending; buckling (columns); combined stresses; repeated load (fatigue); energy loads, impact; influence of properties of material Prerequisite: Theoretical and Applied Mechanics 150 or equivalen Mathematics 143.

T. A. M. 223. Mechanical Behavior of Solids. Credit 1 hour. Influence o loading conditions and environment on the behavior of engineerin materials; effects of rate of loading, time, temperature, number o stress cycles, and state of stress on the ductile and brittle behavior o materials; significance of mechanical properties. Prerequisite: Regis tration in Theoretical and Applied Mechanics 221.

T. A. M. 224. Behavior of Materials. Credit 3 hours. Introduction to atomi and molecular structure of metals, cement, concrete, plastics, ceramics and glass; response of these materials to rapid, steady, and repeate loads at various temperatures (and environments) in terms of rheo logical models; fracture behavior of specific materials, i.e., stress rup ture, brittle fracture, and fatigue of metals and concrete. Prerequisite Theoretical and Applied Mechanics 221.

T. A. M. 232. Fluid Mechanics. Credit 3 hours. Analysis of flow of fluids i pipes and in open channels; Bernoulli's theorem; viscosity, laminar an turbulent flow; effects of jets on vanes; hydraulic similitude; dimen sional analysis; Reynold's and Froude's numbers. Prerequiste: Theoret ical and Applied Mechanics 211.

Index

Accountancy courses, 109
Activities, extra-curricular, 64
  Student fee, 47-50
Administrative officers, 11
Admission, 26
  Examinations, 38-40
  Priority Periods, 36
  Requirements, 29-42
    General University, 29
    Gifted students, 42-43
    Lowest quarter students, 34
    Non-resident students, 34
    Special admissions, 40
    Special scholastic requirements, 37-38
    Subjects for specific college and curricula, 33
    Transfer students, 35-36
Advanced Placement, 43-45
Aeronautical Engineering, curriculum, 81
Anthropology courses, 109
Architectural Engineering, curriculum, 86
Architecture, 84
  Admission, 33
  Courses, 110
  Curriculum, 85
  Electives, 85
  Transfer to Urbana, 52
Army Reserve Officers' Training Corps, 106
  Courses, 128
Art, 86
  Admission, 33
  Courses, 110-112
  Curriculum, 86
Athletics, 67

Biological Science courses, 112
Board of Trustees, 10
Bookstore, 62
Business Law, 113

Calendar, 12
Ceramic Engineering curriculum, 81
Chemical Engineering, curriculum, 92
Chemistry courses, 114
  Curriculum, 92
Chicago Departments Committee, 10
Civil Engineering, courses, 116
  Curriculum, 82
Commerce and Business Administration, College of, 72
  Admission, 33
  Commerce and Law, 74
  Commercial teaching, 75, 77
  Curriculum, 75
  Electives, 74
  Prejournalism, 75
  Requirements for all commerce students, 76
  Requirements for graduation, 73
Counseling Services, preadmissions counseling, student counseling services, 57
Courses of instruction, 109
  Correspondence, 6
  Extramural, 5
  Required of all students, 69

Dance courses, 133
Dean of Men, 55
Dean of Students, 55

Dean of Women, 55
Debating, 66
Dentistry, predental curriculum, 95
Deposits:
General, 49
Military, 51
Tuition and Fee, 49

Economics courses, 117
Education courses, 118
Electives, Architecture, 85
Commerce, 74
Liberal Arts and Sciences, 90
Electrical Engineering courses, 118
Curriculum, 82
Employment, student, 57
Engineering, College of, 78
Admission, 33
Aeronautical, 81
Ceramic, 81
Civil, 82
Common program for freshmen, 81
Electrical, 82
Engineering Mechanics, 82
Engineering Physics, 83
General Engineering, 83
Industrial, 83
Liberal Arts combined program, 94
Mechanical, 83
Metallurgical, 84
Requirements for graduation, 78
Engineering Physics, curriculum, 83
English courses, 118
Examinations, entrance, 38-40
General education development, 39
Lowest quarter, 34
Extracurricular activities, 64

Faculty, 14
Fees, 47-52
Food Service, 62
Forestry, curriculum, 95
French courses, 120

General Deposit, 49
General Educational Development, 39
General Engineering courses, 120
Curriculum, 83
Geography courses, 121
Geology courses, 122
German courses, 122
Grading system, 69-70

Health Education courses, 133
Health Service, 63
History courses, 123
Home Economics curriculum, 9
Honors, 68
Hospital and Medical Service, 5
Housing, 6
Humanities courses, 124
Hygiene courses, 124

Industrial Engineering, curriculum, 83

James Scholars, 45
Journalism and Communications prejournalism curriculum, 75, 96

Law, prelaw curriculum, 74, 96
Liberal Arts and Sciences, College of, 88
Admission, 33
Chemistry and Chemical Engineering, 92
Continuation program in Nursing, 98
Engineering combined program, 94

Forestry, 95
General curriculum, 88
Home Economics, 95
Nursing, 98
Occupational Therapy, 98
Physics, 99
Predental, 95
Prejournalism, 96
Prelaw, 96
Premedical, 96
Prepharmacy, 97
Preveterinary medicine, 102
Required subjects, 89
Requirements for graduation, 88, 89, 90, 91
Teacher Education, 100
Library, 60
Loan funds, 56

Management, 125
Marketing, 125
Mathematics courses, 125
Mechanical Engineering courses, 127
Curriculum, 83
Medicine, premedical curriculum, 96
Metallurgical Engineering, curriculum, 84
Military Scholarships, 46
Military Science and Tactics, 106
Courses, 128
Military Service Credit, 46
Miscellaneous fees, 50-51
Music, courses, 128

Nonresident students, admission, 34
Tuition, 47
Nursing, 98
Continuation program, 98

Occupational Therapy, 98
Admission, 33, 37, 38
Pharmacy, prepharmacy curriculum, 97
Philosophy courses, 128
Physical Education, College of, 103
Courses, 129
Physical Science courses, 133
Physics courses, 134-135
Curriculum, 83, 99
Political Science courses, 135
Prejournalism, curriculum, 75, 96
Predental curriculum, 95
Prelaw, curricula, 74, 96
Premedical curriculum, 96
Prepharmacy curriculum, 97
Preveterinary curriculum, 102
Progresssive Admission Plan, 36-37
Psychology courses, 136

Recreation courses, 131
Refunds of fees, 51-52
Rhetoric courses, 136
R.O.T.C., 8, 106

Scholarships, 53-54
Military, 46, 54
Scholastic requirements admission, 34
Selective Service deferment, 46
Semester fees, 47
Semester hour, definition, 70
Social Science courses, 137
Sociology courses, 138
Spanish courses, 138
Speech Improvement Laboratory, 60
Speech courses, 139
Student Counseling Service, 57
Student Welfare, 55
Dean of Men, 55
Dean of Students, 55
Dean of Women, 55

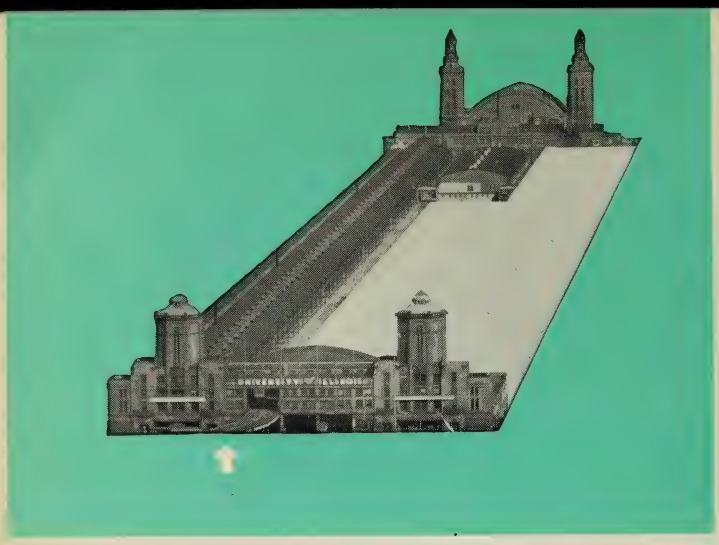
Hospital and Medical Service, 57
Loan funds, 56
Speech Improvement Laboratory, 60
Student Counseling Service, 57
Student Employment, 57
Subjects required for specific colleges and curricula, 33
Summer Session fees, 48-49

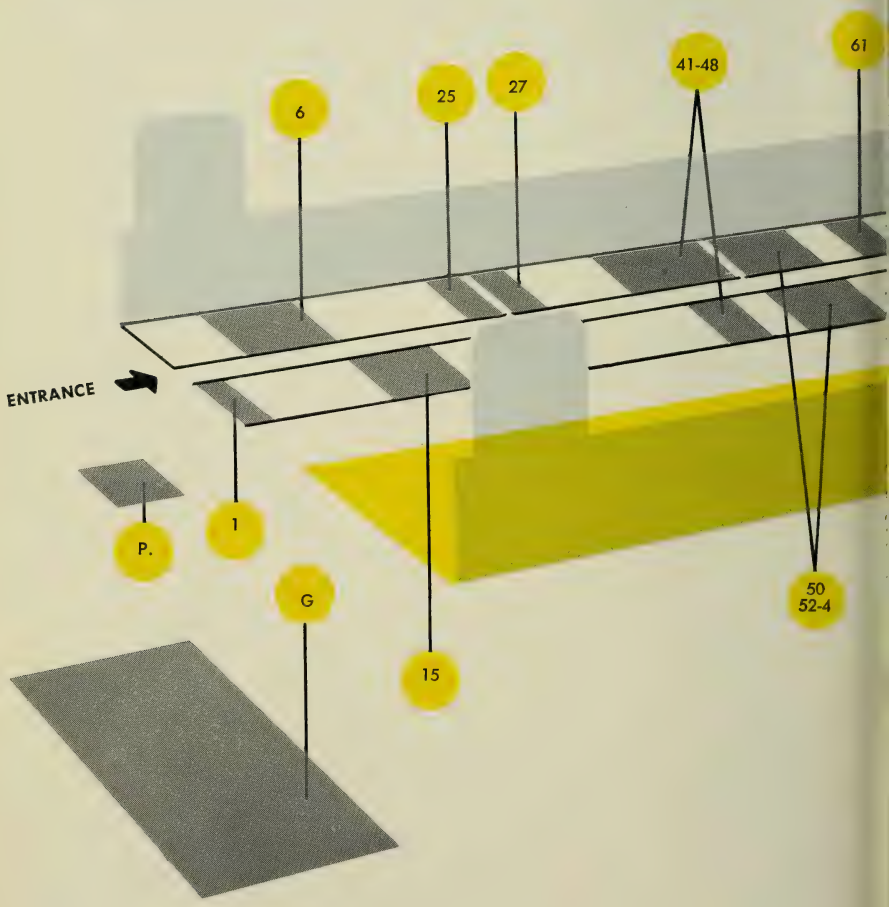
Talented Student Program for High School Seniors, 42-43
Teacher Education, curricula, 100
Theoretical and Applied Mechanics courses, 141-142
Transfer students, admission, 35-36
Tuition and Fees, 47-52
Admission Deposit, 49
Deferred, 50
General Deposit, 49
Hosp. Med. Ins. fee, 49
Illini Union fee, 50
Military Deposit, 51
Miscellaneous fees, 50-51
Refunds, 51-52
Semester fees, 47
Summer Session fees, 48-49

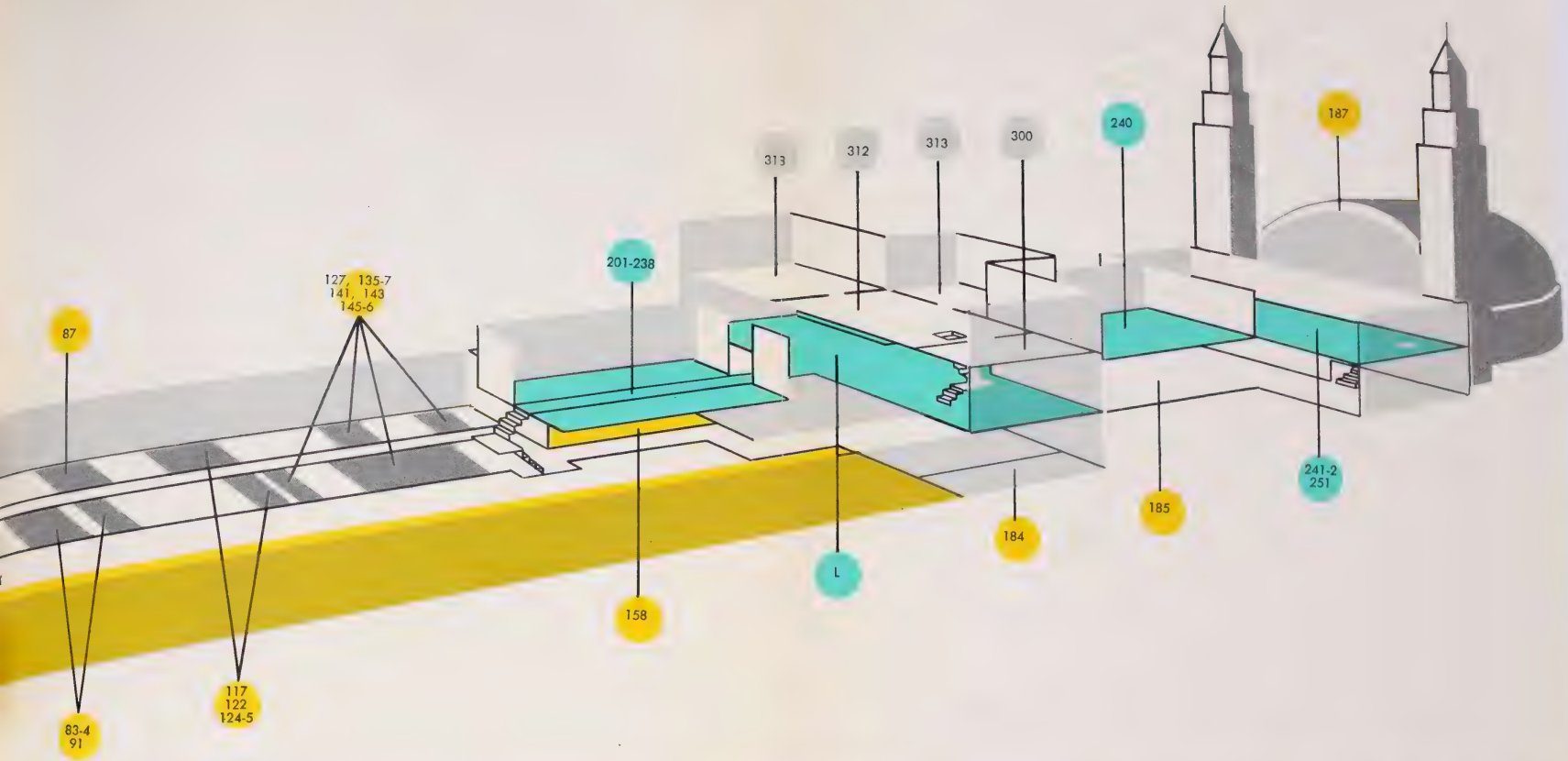
University Services, 55
Urbana, transfer to, 52

Veterans' information, 45
Veterinary Medicine, preveterinary medicine curriculum, 102

Withdrawal from University, 52




6
25
27
41-48
61
ENTRANCE
P.
1
G
15
50
52-4



ROOM NUMBERS OF DEPARTMENTS AND POINTS OF INTEREST

- P. UNIVERSITY POLICE HEADQUARTERS
- G. MEN'S GYM
- 1 INFORMATION DESK
- 6 SNACK BAR AND LOUNGE
- 15 ADMISSIONS AND RECORDS OFFICE
- 25 ASSOC. DEAN OF LAS
- 27 ASSOC. DEAN OF COMMERCE
- 41-48 BIOLOGICAL SCIENCES LABORATORIES
- 50, 52-4 CHEMISTRY LABORATORIES
- 61 CONCRETE TESTING LABORATORY
- 64 MACHINE SHOP
- 70-1, 77 WELDING LABORATORY, FOUNDRY, SAND TESTING LABORATORY
- 83-4, 91 ART ROOMS
- 87 BOOKSTORE
- 117, 122, 124-5 PHYSICS LABORATORIES
- 127, 135-7, 141, 143, 145-6 GENERAL ENGINEERING DRAWING
- 158 PHYSICAL PLANT
- 184 ASSOC. DEAN OF ENGINEERING
- 185 STUDENT CAFETERIA
- 187 AUDITORIUM AND WOMEN'S GYM
- 201-238 LECTURE ROOMS AND CLASSROOMS
- L LOUNGE
- 240 LIBRARY
- 241-2, 251 ARCHITECTURE ROOMS
- 300 STUDENT COUNSELING BUREA
- 312 LOUNGE
- 313 DEAN OF STUDENTS, DEAN OI MEN, DEAN OF WOMEN
- 318 HEALTH SERVICE

LAND GRANT COLLEGES
1862-1962
& STATE UNIVERSITIES

C
IZ43Ic
1962/63
cop. 2

university of illinois

chicago undergraduate division

THE LIBRARY OF THE
OCT 25 1963
UNIVERSITY OF ILLINOIS

CATALOG 62 - 63

UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

Chicago Professional Colleges

PUBLIC TRANSPORTATION

TO CHICAGO UNDERGRADUATE DIVISION

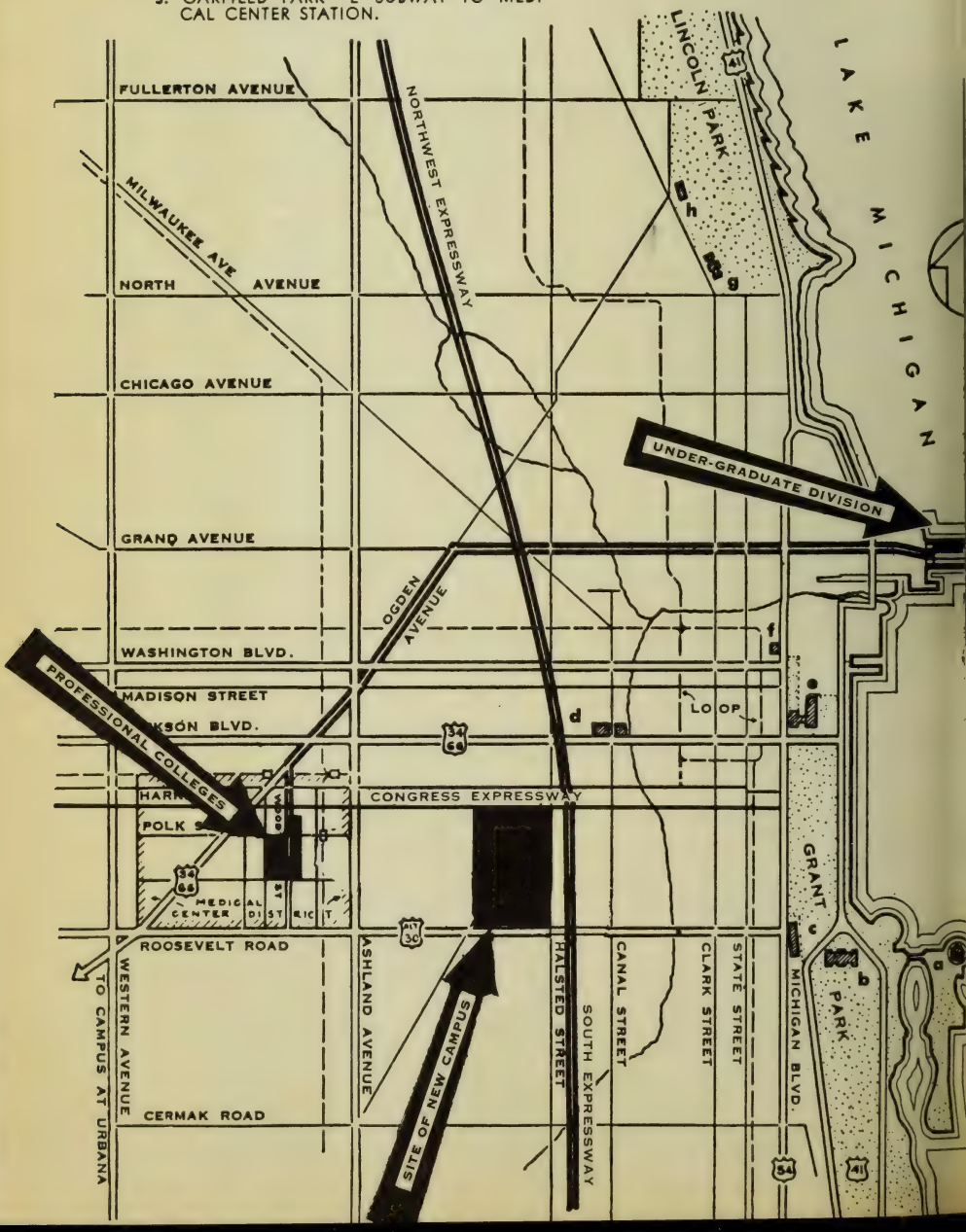
1. NORTH-SOUTH SUBWAY, TRANSFER AT GRAND AVENUE.
2. ANY NORTH-SOUTH BUS LINE, TRANSFER AT GRAND AVENUE.
3. GRAND AVENUE BUS.
4. CANAL-WACKER BUS (FROM LOOP).

TO PROFESSIONAL COLLEGES

1. N. OGDEN AVENUE BUS TO POLK-WOOD STREETS.
2. DOUGLAS PARK "L"-SUBWAY TO POLK STREET.
3. GARFIELD PARK "L"-SUBWAY TO MEDICAL CENTER STATION.

LEGEND

- a ADLER PLANETARIUM
- b CHICAGO NATURAL HISTORY MUSE
- c ILLINOIS CENTRAL R.R. STATION
- d UNION R.R. STATION
- e ART INSTITUTE
- f CRERAR LIBRARY
- g CHICAGO HISTORICAL SOCIETY
- h CHICAGO ACADEMY OF SCIENCES



University of Illinois

Chicago Undergraduate Division

Chicago

Contents

Page

Your University 4
Board of Trustees 10
Administrative Officers 11
Calendar 13
Faculty 15
Admission Procedures 27
Admission Requirements 30
Special Programs for Gifted Students 46
Tuition and Fees 51
Scholarships 55
Withdrawal and Transfer 57
Special Information for Veterans 57
University Services 59
Jobs and Employment 60, 61
Extracurricular Activities 68
Honors 72
Courses Required of All Students 74
College of Commerce and Business Administration 77
College of Engineering 84
Architecture and Art 90, 93
College of Liberal Arts and Sciences 95
College of Physical Education 110
Army Reserve Officer's Training Corps 113
Courses of Instruction 116
Index 152

Your Universit

The Chicago Undergraduate Division of the University of Illin is entering its seventeenth school year. Since 1946 this campus of University has offered a well-rounded educational program to th sands of students who have found it to their advantage to live in Chicago metropolitan area while attending college. The campus conveniently located on Chicago's Navy Pier, at the foot of Gra Avenue at Lake Michigan. This Division offers work in four colle —Commerce and Business Administration, Engineering (includ Architecture, Architectural Engineering, and Art), Liberal Arts a Sciences (including Education), and Physical Education.

In addition, preprofessional courses of study necessary for adm sion to the professional colleges of medicine, dentistry, pharma veterinary medicine, journalism, law, nursing, and occupational th apy are available.

The courses, held during the daytime hours only, are exactly l those offered in the same fields of study on the University of Illin campus at Urbana-Champaign. The tuition and admission requi ments are the same on both campuses.

Excellent instructional facilities are provided in the school's s enty-five classrooms and thirty-five modern, fully-equipped laborator A 100,000-volume library, recreational facilities, well-furnish lounges, and food service supplement the academic program. A la gymnasium adjacent to the main building houses the athletic progra The basic courses in Army ROTC are available on a voluntary b for men students.

The academic life of the student is supervised by the dean a the staff of the college in which the student enrolls. For most matt of student welfare and activities, the student is advised by the De of Students and his staff. Professional counseling and scientific te ing services are available to students and prospective students throu the Student Counseling Service.

The Chicago Undergraduate Division, through its education social, and cultural program, provides its student body with the sa high degree of service which has been so long a part of the traditi of the University of Illinois.

SOME QUESTIONS AND ANSWERS

The University of Illinois welcomes the interest you show by reading this catalogue. The offerings of the Chicago Undergraduate Division are presented in considerable detail in this publication. However, our experience has taught us that there are some questions that are asked more frequently than others.

You will find outlined below some of the items of information most often sought.

• CAN I EARN A DEGREE AT THE CHICAGO UNDERGRADUATE DIVISION?

No, not yet. At the present time this Division offers generally the first two years' work in:

Commerce and Business Administration; Engineering; Architecture (two and one-half years); Art; Liberal Arts and Sciences (including Teacher Education); Physical Education (professional courses for both men and women). Look on page 9 for a complete listing of the curricula offered.

EXCEPTIONS:

The complete *three-year premedical* and *prelegal* programs are offered at this Division. Students apply directly to the professional colleges after completing the preparatory program.

NIGHT CLASSES?

Day classes only are offered as part of the program of this Division; however,

EXTRAMURAL COURSES:

The facilities of this Division are used at night for extramural courses offered under the auspices of the Division of Extension. Call the Illini Center, RAndolph 6-7750, for further information.

SCHOOL OF SOCIAL WORK:

Complete graduate degree program is offered in Chicago. Call MOnroe 6-3900, Extension 8351, or write to Room 176, 833 S. Wood Street, Chicago 12, Illinois.

OTHER UNIVERSITY OF ILLINOIS FACILITIES IN CHICAGO, on the Professional Campus, are

Medicine — Occupational Therapy — Dentistry
Pharmacy — Social Work — Nursing
Graduate School (Health Sciences)

For information: write to University of Illinois, 1853 W. Polk Street, Chicago 12, Illinois, or call MOnroe 6-3900.

- **WHERE IS THE CHICAGO UNDERGRADUATE DIVISION?**
  At the foot of Grand Avenue at Lake Michigan.
- **WHERE IS THE MAIN CAMPUS OF THE UNIVERSITY OF ILLINOIS?**
  In Urbana, about 130 miles south of Chicago.
- **ARE THE COURSES TAUGHT AT THE CHICAGO UNDERGRADUATE DIVISION THE SAME AS THOSE IN URBANA?**
  Yes. One can think of this Division as a section of the Urbar campus transplanted to Chicago.
- **TUITION AND FEES:**
  For residents of Illinois, $120 per semester.
  For nonresidents of Illinois, $295 per semester.
  All NEW students pay an additional $5 general deposit.
  Payment in full on the day you register; or deferred fee pla (50% at time of registration, balance within 30 days).
- **FINANCIAL AIDS:**
  Scholarships, loans, part-time employment. See pages 55 and 6
- **HOUSING:**
  Since almost all our students live at home, no housing is provide However, students in need of housing as well as students tran ferring to Urbana from the Chicago Undergraduate Divisio may obtain information from the Dean of Women, Room 313.
- **STUDENT ACTIVITIES:**
  Over fifty different student organizations are active on th campus. See page 68.
- **CORRESPONDENCE COURSES:**
  For information write to
  Division of University Extension
  University of Illinois
  Urbana, Illinois
  Correspondence courses are not offered through the facilities this campus.
- **FOREIGN STUDENTS:**
  Foreign students from many countries throughout the world a now attending on this campus. Special courses in rhetoric ar speech are offered for those who do not have proficiency in th English language because of their foreign background. The classes are designed to take care of the individual needs of th student. Special advisors assist foreign-born students to evalua their abilities, plan their programs and interpret regulatio

applicable to foreign students. This service includes assistance on problems of extension of stay, permission to accept employment, border-crossing, and the details of maintaining legal status.

- FACILITIES:

75 classrooms
35 modern, fully-equipped laboratories
100,000-volume library
Recreational facilities and lounges
Food service
Gymnasium facilities for men and women
Auditorium facilities for educational, social and special events
Student union

A typical class.

Dramatic arts and play production
Radio, television, recording equipment
Bookstore
Student newspaper and photography facilities
Musical instruments for loan
Record library and listening facilities
Health Service

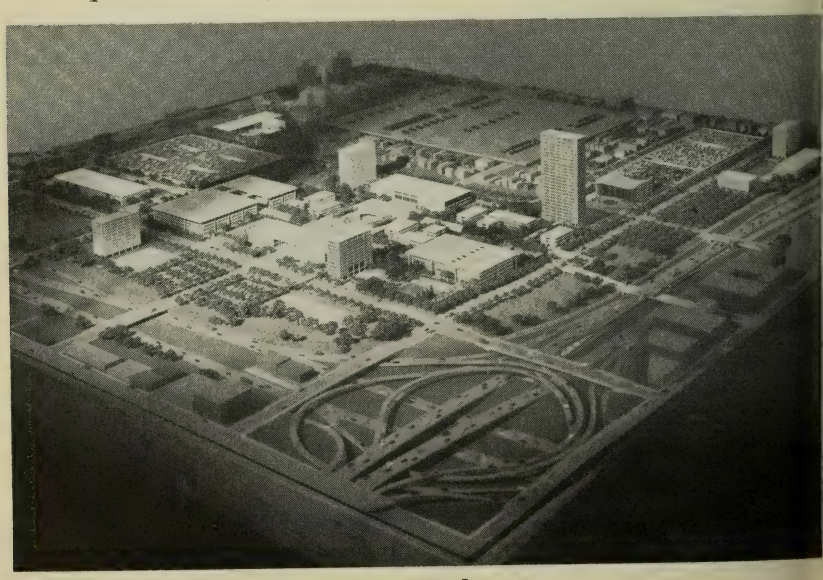
- **ATHLETICS:**
  1. Varsity competition in

Basketball	Gymnastics
Baseball	Soccer
Cross Country	Swimming
Football	Tennis
Golf	Track and Field
	Wrestling

  2. Intramural sports program serves over 1200 students eac semester.
  3. Women's Athletic Association and Orchesis

Sports Activities	Dance Activities

- **STUDENT COUNSELING SERVICES:**
  Educational and vocational guidance counseling. See pages 61-6
- **CURRICULA IN MUSIC ARE NOT OFFERED ON THIS CAMPUS.**
  (But certain courses are.) See page 137.
- **IS ROTC REQUIRED?**
  Participation is urged, but not required. If started, it must b completed. See pages 113-115.
- **PHYSICAL EDUCATION:**
  Generally, all students must earn four semesters credit physical education for the bachelor's degree. See page 110.
  Registration in ROTC does not exempt students from the degre requirements in physical education.



Congress Circle—soon.

• COLLEGES AND CURRICULA OFFERED

LIBERAL ARTS AND SCIENCES

Chemical Engineering
Chemistry
Combined Engineering-Liberal Arts
Forestry (one year only)
General
Home Economics (one year only)
Occupational Therapy
Physics
Speech Correction
Preprofessional curricula:
  Predentistry
  Prejournalism
  Prelaw
  Premedicine
  Prenursing
  Prepharmacy
  Preveterinary Medicine

Teacher Education Curricula:
  Biology
  Chemistry
  Deaf and Hard of Hearing Children
  Elementary Education
  English
  French
  Geography
  German
  Industrial Education
  Mathematics
  Mentally Handicapped Children
  Music Education
  Physics
  Social Studies
  Spanish
  Speech

COMMERCE

Common program for all Commerce Students
Commercial Teaching

Prejournalism
Prelaw

ENGINEERING

Aeronautical
Agricultural
Ceramic
Civil
Electrical
Engineering Mechanics
Engineering Physics
General

Industrial
Mechanical
Metallurgical
Mining
Sanitary
Combined Liberal Arts-Engineering

Architectural Design
Architectural Construction

Art Education
Arts and Crafts
Industrial Design

History of Art
Advertising Design
Painting

PHYSICAL EDUCATION

Physical Education for Men
Physical Education for Women

Dance
Health Education
Recreation

Board of Trustees

UNIVERSITY OF ILLINOIS

Members Ex-Officio

OTTO KERNER, Governor of Illinois ..... Springfiel
GEORGE T. WILKINS, Superintendent of Public Instruction ..... Springfiel

Elected Members
Term 1957-1963

WAYNE A. JOHNSTON ..... 135 E. Eleventh Place, Chicago
EARL M. HUGHES ..... Hughes Farms, Route 1, Woodstoc
TIMOTHY W. SWAIN ..... 912 Central National Bank Building, Peoria

Term 1959-1965

HOWARD W. CLEMENT ..... 38 S. Dearborn St., Chicago
RICHARD A. HAREWOOD ..... 733 E. 75th St., Chicago 1
HAROLD POGUE ..... 705 N. Oakland Ave., Decatu

Term 1961-1967

IRVING DILLIARD ..... 505 E. Church St., Collinsvil
MRS. FRANCES B. WATKINS ..... 5454 Cornell Ave., Chicago 1
KENNEY E. WILLIAMSON ..... Sixth Floor, Lehmann Building, Peoria

Officers of the Board

HOWARD W. CLEMENT, President ..... Chicag
ANTHONY J. JANATA, Secretary ..... Urban
CLARENCE W. WELDON, Treasurer ..... Chicag
HERBERT O. FARBER, Comptroller ..... Urban

Committee on the Chicago Departments

MRS. FRANCES B. WATKINS, Chairman, WAYNE A. JOHNSTON,
HAROLD POGUE

Administrative Officers

1961-1962

Urbana

DAVID DODDS HENRY ..... President
CHARLES WILSON SANFORD ..... Dean of Admissions

Chicago Undergraduate Division

NORMAN A. PARKER ..... Vice President
JOHN L. DILLINGER ..... Assistant to the Vice President
ORA L. RAILSBACK ..... Assistant to the Vice President
CHARLES C. CAVENY ..... Executive Dean
HAROLD N. COOLEY ..... Assistant Dean
PAUL CAHILL ..... Manager, Public Information
DANIEL L. CRUMPACKER, Lt. Col., USA .... Commandant, Army ROTC Unit
PAUL C. GREENE ..... Director, Student Counseling Service
ARNOLD J. HARTOCH ..... Director of Publications
EDWARD M. HEILIGER ..... Librarian
JAMES J. OVERLOCK ..... Director, Illini Union
HARRY W. PEARCE ..... Associate Director, Physical Plant
Project Director, Congress Circle Campus
ARTHUR D. PICKETT ..... Associate Director, University Honors Programs
ROBERT E. PORTER ..... Assistant Business Manager
H. GORDON REID, M.D. ..... Director, Health Service
LEE J. VOTAVA ..... Associate Director, Nonacademic Personnel
ROBERT L. ZANDER ..... Superintendent of Buildings and Grounds

Admissions and Records

HAROLD E. TEMMER ..... Associate Dean
KIRKER SMITH ..... Assistant Dean

Dean of Students

WARREN O. BROWN ..... Associate Dean
LAURETTE A. KIRSTEIN ..... Coordinator of Foreign Students
AGNES G. TANDBERG ..... Dean of Women
MERTON S. ZAHRT ..... Assistant to the Dean

Commerce and Business Administration

WILLIAM J. DUNNE ..... Assistant Dean
ALFONSE T. MALINOSKY ..... Assistant to the Dean

Engineering, Art, Architecture

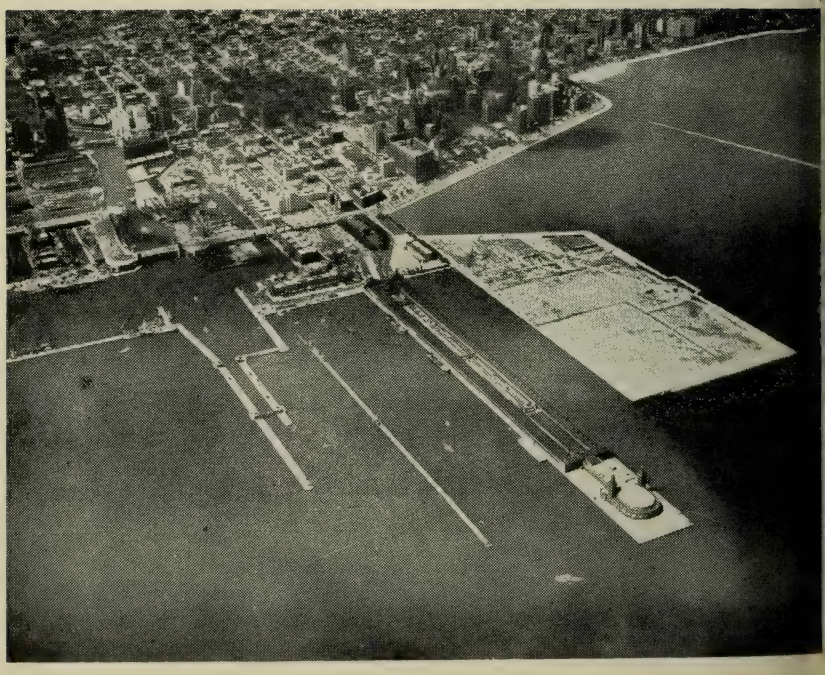
FREDERICK W. TREZISE ..... Associate Dean
RUPPERT M. PRICE ..... Assistant Dean
H. DALE WALRAVEN ..... Assistant to the Dean

Liberal Arts and Sciences

HAROLD W. BAILEY ..... Associate Dea
WILLIS C. JACKMAN ..... Assistant Dea
ELLIS B. LITTLE ..... Assistant Dea
ROBERT L. MILLER ..... Assistant to the Dea

Physical Education

JOHN O. JONES ..... Associate Dean, Director of Athleti
SHELDON L. FORDHAM ..... Assistant Dean, Assistant Director of Athleti



The Campus—now.

Calendar

Chicago Undergraduate Division

rst Semester (Fall 1962)

ept. 4, Tues.-Sept. 12, Wed.	Orientation period
ept. 13, Thurs.-Sept. 14, Fri.	Registration
ept. 17, Mon.	Instruction begins
ct. 21, Sun.	Chicago Undergraduate Division opened 1946
ov. 21, Wed., 6 p.m.	Thanksgiving Vacation begins
ov. 26, Mon., 8 a.m.	Thanksgiving Vacation ends
ec. 3, Mon.	Illinois Day (State admitted to the Union, 1818; not a holiday)
ec. 14, Fri., 6 p.m.	Christmas Vacation begins
n. 2, Wed., 8 a.m.	Christmas Vacation ends
n. 18, Fri.-Jan. 25, Fri.	Semester examinations

cond Semester (Spring 1963)

n. 31, Thurs.-Feb. 6, Wed.	Orientation period
b. 7, Thurs.-Feb. 8, Fri.	Registration
b. 11, Mon.	Instruction begins
ar. 2, Sat.	University Day (University opened, 1868; not a holiday)
ril 11, Thurs., 6 p.m.	Easter Vacation begins
ril 17, Wed., 8 a.m.	Easter Vacation ends
ay 3, Fri.	Honors Day
ay 30, Thurs.	Memorial Day (holiday)
ay 31, Fri.-June 7, Fri.	Semester examinations

nmer Session 1963

ne 21, Fri.	Registration
ne 24, Mon.	Instruction begins
y 4, Thurs.	Independence Day (holiday)
g. 16, Fri.	Summer Session examinations

Calendar

Urbana

First Semester (Fall 1962)

Sept. 4, Tues.-Sept. 7, Fri. ..... Entrance examinatio
Sept. 10, Mon.-Sept. 15, Sat. ..... New Student Week and registrati
Sept. 17, Mon., 7 a.m. ..... Instruction begi
Nov. 21, Wed., 1 p.m. ..... Thanksgiving Vacation begi
Nov. 26, Mon., 1 p.m. ..... Thanksgiving Vacation en
Dec. 3, Mon. ..... Illinois Day (State admitted to the Union, 181
Dec. 20, Thurs., 1 p.m. ..... Christmas Vacation begi
Jan. 3, Thurs., 1 p.m. ..... Christmas Vacation en
Jan. 17, Thurs.-Jan. 25, Fri. ..... Semester examinatio

Second Semester (Spring 1963)

Jan. 29, Tues.-Feb. 1, Fri. ..... Entrance examinatio
Feb. 2, Sat.-Feb. 7, Thurs. ..... New Student Program and registrati
Feb. 8, Fri., 7 a.m. ..... Instruction begi
March 2, Sat. ..... University Day (University opened, 186
April 6, Sat., 1 p.m. ..... Spring Vacation begi
April 15, Mon., 1 p.m. ..... Spring Vacation en
May 3, Fri. ..... Honors Day (classes dismissed at noo
May 30, Thurs. ..... Memorial Day (holida
May 31, Fri.-June 8, Sat. ..... Semester examinatio
June 15, Sat. ..... Commencement exercis

Summer Session 1963

June 4, Tues.-June 7, Fri. ..... Entrance examinatio
June 17, Mon. ..... Registratio
June 18, Tues., 7 a.m. ..... Instruction begi
July 4, Thurs. ..... Independence Day (holiday
Aug. 9, Fri.-Aug. 10, Sat. ..... Summer session examinatio

Faculty

961-1962

PROFESSORS

abler, Bernard J., Ph.D., Chemistry; Acting Head of the Division of Physical Sciences.

ailey, Harold W., Ph.D., Mathematics; Associate Dean of Liberal Arts and Sciences.

arber, Hollis W., Political Science.

arton, Helen M., Ed.D., Physical Education for Women; Head of Department of Physical Education for Women.

arlson, Clarence I., B.S., General Engineering; Head of Department of General Engineering.

aveny, Charles C., Executive Dean, Chicago Undergraduate Division.

obb, Arnold C., M.S., Theoretical and Applied Mechanics.

rum, Ferris B., Ph.D., Chemistry.

utshall, Alden D., Ph.D., Geography.

errick, Lucile, Ph.D., Economics.

ox, Samuel, J. D., Ph.D., Accountancy.

rank, Evelyn, Ph.D., Mathematics.

illett, Clarence H., Ph.D., Economics.

ppert, Harold R., M.S., General Engineering.

rampp, William D., Ph.D., Economics.

reene, Paul C., Ph.D., Psychology; Director, Student Counseling Service.

eilinger, Edward M., M.A., Library Administration; Librarian.

uitema, Roy, Ph.D., Chemistry.

nes, John O., M.S., Physical Education for Men; Associate Dean of Physical Education; Director of Athletics.

rpinski, Robert W., D. és Sc., Geology.

assen, Peter P., Ph.D., Sociology.

zacka, Joseph S., M.S., Mechanical Engineering, *emeritus*.

pman, Eli A., Ph.D., Psychology.

adison, Kenneth M., Ph.D., Biological Sciences.

cEldowney, Harold B., B.S., Architecture; Head of Department of Architecture and Art.

cNee, John D., A.M., Art.

cNeil, Edward B., Ph.D., Physics.

loy, Carl R., Ph.D., Chemistry; Head of the Division of Physical Sciences. (On leave 1961-62.)

Morris, Daniel J., Ph.D., Philosophy.
Parker, Norman A., Vice President, Chicago Undergraduate Divisi
Pickett, Arthur D., Ph.D., Biological Sciences; Associate Dean of A
ministration.
Radice, Canio, M.A., Art.
Railsback, Ora L., Ph.D., Physics; Head of Department of Physics.
Richardson, John F., M.A., Art.
Ricks, Victor E., Ph.D., Education.
Riddle, Donald W., Ph.D., History; Head of the Division of Soc
Sciences.
Rouffa, Albert S., Ph.D., Biological Sciences; Acting Chairman of t
Division of Biological Sciences.
Sánchez, José, Ph.D., Foreign Languages.
Sangster, William, Ph.D., Biological Sciences.
Schuyler, William M., Ph.D., Foreign Languages.
Shapiro, Samuel E., B.S., General Engineering.
Shopen, Kenneth, B.A., Art.
Thompson, Wayne N., Ph.D., Speech
Trezise, Fred W., C. E., M.S., Engineering; Associate Dean of E
gineering.
Vardaman, Hazel C., Ph.D., Foreign Languages.
Vest, Eugene B., Ph.D., English; Head of the Division of Humaniti
Walraven, H. Dale, M.A., General Engineering; Assistant to the De
Engineering.
Winsberg, Lester, Ph.D., Physics.

ASSOCIATE PROFESSORS

Anderson, William R., M.S., Physics.
Bachrach, Joseph, Ph.D., Chemistry.
Bill, Shirley A., Ph.D., History.
Blum, Irving D., Ph.D., English.
Chandler, Louis, Ph.D., Physics.
Chandler, Margaret K., Ph.D., Sociology.
Coe, Edward H., C.E., Civil Engineering.
Corley, Robert E., Ph.D., Sociology.
Crumpacker, Daniel L., B.S., Lt. Col., U.S.A., Military Science.
Curtis, Herbert J., Ph.D., Mathematics; Acting Head of the Divisi
of Mathematics.
De Filipps, Anthoney J., B.S. Architecture.
Dinkines, Flora, Ph.D., Mathematics.
Feinstein, Irwin K., Mathematics Education.
Glassman, Sidney F., Ph.D., Biological Sciences.
Hartley, Miles C., Ph.D., Mathematics.

Hartoch, Arnold J., Ph.D., Foreign Languages; Director of Publications.
Howard, Allen H., Ph.D., Psychology.
Hunt, Charles K., Ph.D., Chemistry.
Johnson, Falk S., Ph.D., English.
Johnson, Herman J., M.S., Physics.
Jones, Stanley L., Ph.D., History.
Kabbes, S. Madonna, C.P.A., Accountancy.
Karanikas, Alexander, Ph.D., English.
Kauf, Robert, Ph.D., Foreign Languages.
Klehr, Harold, Ph.D., Psychology; Assistant Director, Student Counseling Service.
Kogan, Bernard R., Ph.D., English.
Kohler, Richard C., D.Ed., General Engineering.
Kostka, Helen M., M.D., Hygiene.
Lein, Marie E., Ph.D., Foreign Languages.
Little, Ellis B., Ed.D., Biological Sciences; Assistant Dean of Liberal Arts and Sciences.
Mansfield, J. Victor, Ph.D., Chemistry.
Marsh, John O., Ph.D., Foreign Languages.
Mikolajczyk, Henry L., M.A., Architecture.
Mueller, Hans J., Ph.D., Chemistry.
Nicholas, Constance, Ph.D., English.
Nicholson, Robert L., Ph.D., History.
Pennisi, Louis L., Ph.D., Mathematics.
Perkins, Roy B., M.S., Mechanical Engineering.
Pitt, Carl A., Ph.D., Speech.
Price, Rupert M., M.A., Physics; Assistant Dean of Engineering.
Rathburn, Rowland, M.S., Architecture.
Reid, H. Gordon, M.D., Hygiene; Director, Health Service.
Runyan, Harry J., Ph.D., English.
Schneider, Albert J., M.B.A., C.P.A., Accountancy.
Schiller, Andrew, Ph.D., English.
Schrage, Samuel, Ph.D., Chemistry.
Schroeder, Roy W., Foundry and Pattern Design.
Schultheiss, Louis A., M.A., Library Administration; Head of Technical Processes.
Shank, Max C., Ph.D., Biological Sciences. (On leave 1961-62.)
Shaw, Fayette B., Ph.D., Economics.
Shadeland, Harold M., M.A., Physics.
Shafer, Louis, Ph.D., History, *emeritus*.
Shalley, John E., Art.
Sheissman, Herman B., Ph.D., Physics.

Wiesinger, Frederick P., Ph.D., Civil Engineering.
Willner, Ernest S., Ph.D., Foreign Languages.
Wright, Elizabeth V., Ph.D., English.

ASSISTANT PROFESSORS

Alberti, Furio, Ph.D., Mathematics.
Andrews, Daniel K., Ph.D., Accountancy.
Baer, Jean H., Ph.D., Education; Administrative Assistant, Stude
Counseling Service.
Ballard, Ruth M., Ph.D., Mathematics.
Berman, Louis A., Ph.D., Psychology; Counselor, Student Counselin
Service.
Berrafato, Peter R., M.S., Physical Education for Men; Director
Intramural Sports.
Bess, Leon, Ph.D., Physics.
Blair, Leon N., B.S., General Engineering.
Burch, Irenaes A., Ph.D., Psychology; Counselor, Student Counselin
Service.
Burr, Edward E., B.F.A., Art.
Buss, Truman C., Jr., B.S., General Engineering.
Colby, Mary M., Ph.D., Geography.
DeMar, Robert, E., Ph.D., Geology.
Dembski, Marion V., M.A., General Engineering.
Dunne, William J., M.B.A., Economics; Assistant Dean of Commerc
Edie, Carolyn A., Ph.D., History.
Elting, Winston, A.B., Architecture.
Ferguson, Marie A., Ph.D., Psychology; Counselor, Student Counselin
Service.
Finney, Mildred I., Ph.D., Geography.
Fissinger, Edwin R., M.Mus., Music.
Fordham, Sheldon L., M.S., Physical Education for Men; Assista
Dean of Physical Education, Assistant Director of Athletics.
Frommherz, Carl J., A.B., B.S. in L.S., Library Administration; Catalo
Librarian.
Gallagher, Robert E., Ph.D., English.
Gedvilas, Leo L., M.S., Physical Education for Men; Assistant Direct
of Intramural Sports.
Geldard, Winifred B., M.A., Economics.
Gerstner, Robert W., Ph.D., Civil Engineering.
Ginzel, Roland F., M.F.A., Art.
Goodman, Gordon L., Ph.D., History.
Gottlieb, Anatol, T.Sc.D., Chemistry.
Graf, William, Jr., M.S., Theoretical and Applied Mechanics.

Griest, Guinevere L., Ph.D., English.
Gum, Wanda, Ed.D., Social Sciences, *emerita.*
Hay, Eloise K., Ph.D., English.
Hilker, Gloria L., M.D., Hygiene.
Holladay, Dee M., A.B., B.S., General Engineering.
Jackman, Willis C., M.A., English; Assistant Dean of Liberal Arts and Sciences.
Johnson, John C., Ph.D., English.
Jordan, Moreen C., Ph.D., English.
Klaas, Rosalind A., Ph.D., Chemistry.
Klapperish, Alfred J., B.S., Electrical Engineering.
Knudson, Edward C., M.B.A., Economics, *emeritus.*
Kristufek, Charles J., M.S., Physical Education for Men, Swimming and Tennis Coach.
Leonhard, Zelma B., Ph.D., English.
Lipkin, Lawrence, M.B.A., C.P.A., Accountancy.
Lipman, Vivian C., Ph.D., Psychology.
Livermore, Ogden, M.A., Physics.
Love, W. Nell, Ph.D., English, (On leave 2nd Sem. 1961-62.)
Madenberg, Fred, M.D., Hygiene.
Malinosky, Alfonse T., M.B.A., C.P.A., Accountancy; Assistant to the Dean of Commerce.
Mansfield, Eldon L., Capt., U.S.A., B.A., Military Science.
Masterton, Don A., M.S., Architecture.
Mick, Roger M., Ph.D., Psychology; Counselor, Student Counseling Service.
Miller, Lester H., Jr., M.A., Physical Education for Men; Baseball Coach.
Miller, Sonia, Ph.D., English.
Minkler, Marcus W., M.S., Physics.
Montcalm, Benedict W., M.A., Physical Education for Men; Gymnastics Coach.
Moraine, Fishel E., Dipl.Ing., Physics.
Murphy, Kenneth H., M.S., Mathematics.
Newell, John T., Ph.D., Biological Sciences.
Nickle, Robert W., B.A., Art.
Obarcius, Algis, M.S., Civil Engineering.
Oppademus, John N., M.A., Physics.
Osavento, Wilma, M.A., Physical Education for Women.
Otts, M. Henry, Ph.D., Psychology; Counselor, Student Counseling Service.
Oesley, Halina J., Ph.D., Biological Sciences.
Okove, Milton L., Ph.D., Political Science.

Rapp, Marie A., A.B. in L.S., Library Administration; Circulatio
Librarian.
Rayson, Glendon E., M.D., Hygiene.
Rheumer, George A., Ph.D., Geography.
Rietz, Edward G., Ph.D., Chemistry.
Robertson, Giles B., M.A., Library Administration; Reference Libra
ian.
Royster, Richard S., M.A., General Engineering.
Schroeder, Fred W., M.S., General Engineering.
Setton, Henry A., B.S. in E.E., M.Ed., General Engineering.
Shalabi, Madelaine T., Ph.D., Education.
Shomay, David, Ph.D., Biological Sciences.
Silkett, Albert F., A.B., Physics.
Stableford, Nancy R., M.F.A., Art.
Steiner, John, Ph.D., Chemistry.
Stronks, James B., Ph.D., English. (On leave 1961-62.)
Teichmann, Elizabeth, Ph.D., Foreign Languages. (On leave 2nd Sen
1961-62.)
Versen, Walter G., Ed.M., Physical Education for Men.
Weiss, Samuel A., Ph.D., English.
Weldon, John W., Ph.D., Chemistry.
Willett, Maurita, Ph.D., English.
Yusem, Milton, Ph.D., Chemistry.
Zaccaria, Lucy C., Ph.D., Psychology; Supervisor of Test Research an
Service, Student Counseling.

INSTRUCTORS

Adelsperger, Robert J., M.S., Library Administration; Assistant Refe
ence Librarian.
Alhadeff, Albert V., M.A., Economics. (On Military leave 1961-62.)
Alschuler, Marjorie D., M.S., Chemistry.
Asch, Walter B., Ph.D., History.
Atwood, Norman R., M.A. English.
Baer, Roger K., M.A., Sociology.
Baum, Franklin R., S.Sgt., U.S.A., Military Science.
Baumeister, Roger L., M.A., Speech.
Bengston, Marjorie C., M.S., Library Administration; Assistant Refe
ence Librarian.
Berger, Lois J., M.S., Biological Sciences.
Berglund, Winifred V., M.A., Mathematics.
Blum, Alan F., M.A., Sociology.
Bond, James A., Ph.D., Biological Sciences.
Braunfeld, Johanna, M.A., Foreign Languages.

Caldario, Edward J., B.S., General Engineering.
Carbonaro, Lynn M., M.S., Chemistry.
Carlson, Kathryn H., M.A., English.
Cassell, Robert L., M.A., English.
Charkovsky, Willis, M.Mus., Music.
Chillag, Joan C., M.A., English.
Coleman, Harold M., Ph.D., Chemistry.
Cowin, John W., M.A., Chemistry.
Cox, F. Gaylord, M.A., English.
Creaser, James W., M.A., Psychology; Counselor, Student Counseling Service.
Crews, Janice M., A.M., Speech.
Culbertson, Don S., M.A., Library Administration; Assistant Serial and Acquisition Librarian.
Davis, Russell E., M.A., English.
DeFotis, William, B.S., General Engineering.
le Gryse, Ruby V., M.A., Speech; Head of Speech Improvement Laboratory.
Delfs, Harry J., M.S., Chemistry.
Dembski, William J., M.S., Biological Sciences.
Dewhirst, Donald L., Ph.D., Theoretical and Applied Mechanics.
nglebrecht, Lloyd C., M.S. in L.S., Library Administration; Fine Arts Librarian.
lliott, Patrick F., M.A., English.
arag, Shafeek, M.A., Chemistry.
ine, Ralph S., B.S., C.P.A., Accountancy.
lemer, Stevenson, M.A., Architecture.
iend, James, M.A., English.
ladish, Robert W., M.A., English.
ordon, Louis I., M.S., Mathematics.
oulson, Frances M., M.T.A., Speech.
ay, Joseph L., A.M., Foreign Languages.
rolnick, Carol S., M.A., English.
arlan, Homer C., A.M., History.
rris, Eleanor K., A.M., English.
slett, Jared W., M.S., Physics.
dberg, Donald D., B.A., Chemistry.
dish, Norman D., M.A., Accountancy.
ftel, Daniel L., M.A., Psychology; Counselor, Student Counseling Service.
gie, Lucy, M.A., English.
nderleiter, William M., A.M., Mathematics.
rzog, Elaine Z., M.A., Chemistry.

Hill, Roger G., B.A., Mathematics.
Hoskins, Conde R., M.A., Speech.
Hovde, Helen J., M.A., Speech.
Hunt, Richard H., B.A.E., Art.
Jones, Joan M., Ph.D., Chemistry.
Kerwick, Marion S., M.A., English.
Kester, Martha, M.S. in L.S., Library Administration; Assistant Catalo
Librarian.
Kirstein, Laurette A., M.A., English; Coordinator of Foreign Studen
Activities.
Kise, John A., M.S., Electrical Engineering.
Klatt, Melvin J., M.A., Library Administration; Assistant Referenc
Librarian.
Klee, Florence C., Ph.D., Chemistry.
Kornacker, Mildred, M.A., Social Sciences.
Kramer, Elizabeth B., M.A., English.
Kundrat, Theodore V., M.S., A.M., Speech.
Kurs, Louis N., M.S., Geology. (On leave 1961-62.)
Kurz, Donald A., M.A., General Engineering.
Kuzmanic, Betty J., M.Ed., Mathematics.
Lariviere, Rose, M.A., Mathematics, *emerita.*
Larson, Carl M., M.B.A., Economics.
Lasher, Sim, M.S., Mathematics.
Lawson, Joan C., M.A., English.
Lerner, Isidor, M.A., Physics.
Lerner, Richard H., M.A., English.
Liljequist, Jon L., B.S., Mechanical Engineering.
Linn, Julia B., M.S., Mathematics.
Lumley, Jeannette S., M.A., Mathematics.
Mackin, John H., M.A., English.
Madison, James M., M.B.A., Economics.
Maksud, Michael G., M.S., Physical Education for Men; Basketbal
Coach, Assistant Baseball Coach.
Marcus, Philip S., M.S., Mathematics.
McGehee, Nan E., Ph.D., Psychology.
Merten, Horace C., M.A., English. *emeritus.*
Miller, Irving M., M.A., English.
Miller, John F., Art.
Miller, Oscar, M.A., Economics.
Miller, Robert L., M.S., Chemistry; Assistant to the Dean, Liberal
Arts and Sciences.
Mosillo, Francis A., B.S., General Engineering.

Nemoto, Harold H., B.S., Physical Education for Men; Football Coach, Assistant Baseball Coach.
Nolan, Grace M., M.A., Mathematics.
Oleksy, Margaret H., M.A., English.
Olsen, Charles E., B.S., Mathematics.
Olsen, Irving S., M.A., Foreign Languages.
Ondrak, Thomas B., M.S., Mathematics.
Orr, James B., M.S., Geology.
Ossman, Edward T., B.S.C., Accountancy.
age, Robert R., M.A., Philosophy.
almer, John D., M.S., Biological Sciences.
ancner, Robert, B.S., General Engineering.
aré, Eileen M., M.S., Chemistry.
eck, James R., M.A., English.
erelmuter, Samuel, M.S., Biological Sciences.
erry, Clarence J., M.Ed., Chemistry.
illips, Anne, M.S., English.
rsig, Robert M., M.A., English.
tempa, Sylvester J., M.S., Chemistry.
ider, Richard R., M.A., Physical Education for Men; Golf Coach.
es, Candida K., M.S., Mathematics.
fe, Harold E., M.A., Economics.
berts, Donald D., M.S., Chemistry.
din, Cecilia M., M.A., English.
ssell, Henry B., M.A., Foreign Languages.
ckheim, George I., M.S., Chemistry.
kissian, John L., M.S., Biological Sciences.
voy, Michael G., M.S., Chemistry.
nolomiti, Nicholas C., A.M., Mathematics.
idder, Charles L., M.S., Biological Sciences. (On leave 1961-62.)
bright, Frances K., M.S., Chemistry.
rs, Helen W., A.M., Mathematics.
tzer, Arthur O., A.M., Economics.
ney, Mary C., A.M., English.
on, Catherine H., M.A., Biological Sciences.
blom, Laurence R., B.S., Mathematics.
gen, Clara S., M.A., Foreign Languages.
th, George H., Jr., M.A., Sociology.
es, Harold W., M.D., Hygiene.
akis, Charles N., M.S., Biological Sciences.
, Morris, M.A., English.
ad, George J., M.A., Physical Education of Men; Wrestling Coach and Assistant Football Coach.

Taxey, Paul J., M.A., Biological Sciences.
Terrell, Edward E., S.Sgt., U.S.A., Military Science.
Terrill, Robert E., M.A., English.
Timmis, Beatrice S., M.A., English, *emerita.*
Tomasek, Nancy A., M.A., Foreign Languages.
Tort, Ferdina J., M.A., Foreign Languages.
Vedral, Rose L., M.A., Mathematics.
Warren, Charles P., M.A., Anthropology.
Wilbur, James W., M.A., Physics.
Wiley, Rosemary F., A.M., Mathematics.
Ziomek, Leo F., M.S., Mathematics.
Zygmund, Irena, M.A., Mathematics.

ASSISTANTS

Adekoya, Angela H., M.A., Foreign Languages.
Abrams, Isabel S., M.S., Biological Sciences.
Ames, Betty L., M.A., Psychology.
Anzalone, Charlene B., B.A., B.S., Physical Education for Women.
Bartha, Tamás I., M.S., Mathematics.
Beck, Robert J., M.S., Physical Education for Men; Assistant Coac
Football and Gymnastics.
Broude, Franklyn, M.B.A., Economics.
Ciplijauskaite, Danute L., M.A., Foreign Languages.
Claypoole, Donna J., B.A., Physical Education for Women.
Descourouez, James C., B.S., Physical Education for Men.
Dibble, Carl M., M.A., Political Science.
Drower, Sara R., M.S., Biological Sciences.
Gaines, Alan, M., B.S., Chemistry.
Graunke, Marvin G., B.S., Physical Education for Men; Assista
Basketball, Track and Field, and Cross Country Coach.
Hunt, Marianne, M.A., English.
Hunt, Rogene S., M.A., History.
Keranen, Dolores L., M.A., English.
King, T. S. Conrad, M.A., Foreign Languages.
Klein, Maurice G., LL.B., Speech.
Kotler, Nancy K., M.A., English.
Liddle, Larry B., M.S., Biological Sciences.
Lothian, Thomas A., B.S., Chemistry.
Lynn, Patricia, A.B., Physical Education for Women.
Maurer, Charles B., M.A., Foreign Languages.
McIlroy, Joseph J., M.S., Social Sciences.
Meiland, Jack W., M.A., Philosophy.

Nolan, Robert L., B.S., Physical Education for Men; Cross Country and Track and Field Coach.
Oppenheimer, Zelda V., M.A., Foreign Languages.
Perry, Marla J., B.S., Physical Education for Women.
Reed, Mary V., M.A., English.
Retel, Robert E., M.S., Physical Education for Men; Soccer Coach.
Roseman, Frank, M.A., Economics.
Rozen, Zelda S., B.A., Physical Education for Women.
Rummel, Marion L., M.A., Mathematics.
Russo, Thomas F., B.A., Physical Education for Men; Assistant Basketball and Baseball Coach.
abel, Charles L., M.A., Psychology.
napper, Johan P., B.A., Foreign Languages.
pargo, Gladys R., M.A., Library Administration (Serials and Acquisitions).
tottlar, Carline B., M.A., English.
Thomas, Ruth G., B.S., Physical Education for Women.
on Hentig, Roland T., B.S., Biological Sciences.
Vright, Charles A., A.B., Foreign Languages.
ehme, Donald F., M.A., Foreign Languages.
eitlin, Muriel E., M.S., Chemistry.

VISITING LECTURERS

rown, Allan, Ph.D., Physics.

The New Campus

he Board of Trustees of the University of Illinois has selected as e site of the new four-year, degree-granting Chicago campus of the niversity of Illinois a plot of land bounded roughly by the Congress xpressway, the South Expressway (Halsted Street), Roosevelt Road, id Racine-Morgan-Blue Island (see map inside front cover). Plans ll for occupancy of the new facilities and admission of the first full nior class in September, 1964, the admission of the first full senior ass in September, 1965, and awarding of the first degrees in June, 66. The initial cost will be financed by revenues from the Univerties Bond Issue of 1960. This location has also been approved by e City Council of the City of Chicago, The Chicago Land Clearce Commission, and the Illinois State Housing Board. The new cility will be known as the University of Illinois at Congress Circle.

Congress Circle—soon.

Admission and Registration

ADMISSION PROCEDURES

SECURE AN APPLICATION FOR ADMISSION

The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person. Students may apply either after graduation from high school or during their final semester in high school. In the latter instance, admission will be based upon credit and grades earned during the first seven semesters in high school, scholastic rank in class at the end of the seventh semester, courses in progress the eighth semester and the probable date of graduation, subject, of course, to confirmation after graduation. (For admission by examination in lieu of high school graduation please see page 41.)

PROVIDE OFFICIAL TRANSCRIPTS

Each applicant must arrange with the registrar of his high school and with the registrar of each college or university he may have attended to have a transcript of his record forwarded to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois. This should be done as soon as possible to facilitate early evaluation of his credentials.

In addition, an applicant who has been on active duty in the Armed Forces of the United States of America must submit a photocopy of his service separation papers.

PROVIDE SCORES ON ACT AND STRONG TESTS

The American College Test and the Strong Vocational Interest Blank are required of all new freshmen. Applicants who have not yet taken these examinations may secure information about where and when to take them by writing to: ACT, Central Registration Unit, 519 West Sheridan Road, McHenry, Illinois. (For information about substitution of the Scholastic Aptitude Test of the College Entrance Examination Board, see page 31.)

DECIDE ON THE COLLEGE AND CURRICULUM IN WHICH TO ENROLL

Applicants who have any question as to the course of study to pursu in the University are strongly urged to participate in our guidanc program. Several months in advance of each New Student Orientatio Week, our Student Counseling Service offers educational and voca tional aptitude examinations to students considering attendance here Those who complete these examinations and submit their ACT score and Strong Vocational Interest Blank are given appointments fo professional counseling on test results. More detailed information abou this guidance program appears on pages 61-64. Appointments for th aptitude examinations may be secured from the Office of Admission and Records.

COMPLETE AND RETURN THE APPLICATION BLANK

When the applicant's file is complete, that is, after his applicatio blank and all necessary supporting records, transcripts, and tes scores have been received, the application will be processed. I

additional records are needed (e.g., Academic Dean's recommendation, Illinois residence clarification, etc.) the applicant will be notified by the Admissions Office. If, for some reason, the admission application cannot be approved, the Office of Admissions and Records will send the student a letter which will both explain why he is not eligible for admission and provide suggestions as to how he may remove his deficiencies and qualify for admission to a future session.

If the application is approved and vacancies still exist, the Admissions Office will send the applicant a tuition and fee deposit request. In the Fall Semester the deposit request may be preceded by a notice from the Admissions Office of the applicant's priority group under the Progressive Admissions Plan. (See pages 40-41.)

PAY THE TUITION AND FEE DEPOSIT

The purpose of this deposit is to reserve a place in the entering class for the applicant. When the tuition and fee deposit is paid, the Admissions Office will send the applicant a permit to enter. Enclosed with that permit will be:

A copy of the New Student Week Official Program containing complete information about the activities of New Student Week, schedules for those activities, and for registration.

An envelope containing detailed instructions about the required medical examination, including provisions for its administration by the University Health Service or the student's own physician, at his option.

REPORT FOR ORIENTATION AND REGISTRATION

Using the New Student Week Official Program as his guide, the applicant should report to this campus for orientation and registration. Following this he will pay the balance of his tuition and fees and begin classes.

ADMISSION REQUIREMENTS

Each student must meet two sets of admission requirements: General University Admission Requirements (below) and Specific College Admission Requirements. (See page 33.)

GENERAL UNIVERSITY ADMISSION REQUIREMENTS

These requirements must be met by all applicants. (For definitions of the terms used and a description of the subjects acceptable in satisfaction of the requirements, refer to page 31.)

AGE

Sixteen or older. This requirement may be waived for a student fifteen years of age on recommendation of the Dean of the College which the student plans to enter, provided the student will reside with his parents or guardian or someone selected by them while attending the University.

GRADUATION FROM AN ACCREDITED HIGH SCHOOL

Applicants who are not graduated from accredited high schools may be considered for admission by examination. (See page 42.)

SCHOLASTIC RANK

A detailed statement of the scholastic requirements for admission appears on pages 36 through 40. In general, new freshmen who are residents of Illinois must rank in the top three-quarters of their class; non-residents must be in the upper half. Transfer students must have at least a "C" average. Beginning with admission to the Fall Semester 1963, the requirements for Illinois residents will be raised to the upper half.

FIFTEEN UNITS OF CREDIT

The fifteen required units of acceptable secondary school work must be distributed as follows:

1. A minimum of nine units of work in the academic fields (English,

foreign languages, history and social studies, mathematics, sciences) including:

a. At least three units of English (see page 32), plus

b. An additional three-unit sequence and a two-unit sequence in different academic fields selected from the list of acceptable majors (three units) and minors (two units) described on pages 31-32. (This requirement is waived for an applicant who ranks scholastically in the upper half of his high school graduating class.)

2. Six units in any high school subjects accepted by an accredited school toward its diploma.

COMPLETION OF THE AMERICAN COLLEGE TESTING PROGRAM EXAMINATIONS AND THE STRONG VOCATIONAL INTEREST BLANK

The American College Test and the Strong Vocational Interest Blank are required of all new freshmen. Applicants who have not completed the ACT examination may be considered for provisional admission on the basis of the Scholastic Aptitude Test of the College Entrance Examination Board, subject to the receipt after registration of their ACT scores. The results of the Strong Vocational Interest Blank while required during the admission process will be used for counseling only and not as an admission determinant.

DEFINITION OF UNIT, MAJOR AND MINOR

UNIT

A unit is the equivalent of two high school credits, i. e., the value given to a course of study covering two semesters and including not less than the equivalent of 120 sixty-minute periods of classroom work. Two hours of work requiring little or no preparation outside the classroom are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, geometry, physics, chemistry, or biology.

MAJOR

A major consists of a three-unit sequence in one academic field.

MINOR

A minor consists of a two-unit sequence in one academic field. The University's definition of a major and a minor may not be the same as that in use in your high school.

ACCEPTABLE MAJORS AND MINORS

The required majors and minors (see pages 30-31) must be selected from the following:

English

All students must present a major in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all of the colleges.

Foreign Language

Three units in one language constitute a major. Two units in one language constitute a minor. The University will accept credit in any foreign language earned in an accredited high school. However, if language credit is earned, instead, by passing a University entrance examination that examination must be in a foreign language which is regularly taught by the University.

Mathematics

Only courses in algebra, plane geometry, solid geometry, and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.)

In the College of Engineering and in the chemistry, chemical engineering, and physics curricula of the College of Liberal Arts and Sciences, for which programs advanced high school mathematics is required, a student who has only one unit in algebra and one unit in geometry, and who meets all other entrance requirements, may be admitted on condition that the deficiencies in advanced mathematics are

removed during his first year of residence. This will probably extend the time required for a degree. A student who does not present the advanced mathematics specified may be admitted to full standing by passing at the University a mathematics proficiency examination which indicates that his preparation is adequate for entrance into analytic geometry.

Science

Acceptable courses include: physics, chemistry, biology, botany, zoology, general science, physiology, physiography, astronomy, geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, zoology. Biology may be offered in place of botany or zoology.

Social Studies

This field is divided into two subject areas:

1. History, e.g., United States, modern, ancient, medieval, etc. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.
2. General Social Studies, e.g., civics, economics, psychology, sociology, and economic geography.

SPECIFIC COLLEGE ADMISSION REQUIREMENTS

These vary depending upon the college and curriculum (within the University of Illinois) which the student plans to enter and apply only to students entering that college and curriculum. See chart on pages 34-35 for list of required subjects.

SPECIAL ADDITIONAL REQUIREMENTS FOR CERTAIN PROGRAMS

1. Occupational Therapy:
   a. Age: Under Thirty
   b. Ability to pass a special health examination given by the University Health Service
   c. Favorable recommendation from the Director of Occupational

Required Subjects for Specific Colleges and Curricula

(IN ADDITION to the General University Admission Requirements, page 30)

Colleges & Curricula	Required Subjects	
	Effective through Summer 1963	**Effective beginning Fall 1963**
COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION All Fields	Algebra, 1 unit Geometry, 1 unit	Requirements the same as for Spring 1963.[4]
COLLEGE OF ENGINEERING (Aeronautical, Agricultural, Ceramic, Civil, Electrical, Engineering Mechanics, Engineering Physics, General, Industrial, Mechanical, Metallurgical, Mining, Sanitary.) For combined Engineering-Liberal Arts curriculum, see under Liberal Arts.	Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit (See Page 32)	Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit Social Studies, 2 units Science, 2 units[3] Foreign Language, 2 units[2]
Curricula in Architecture Construction Option (for B.S. degree in Architectural Engineering); Design Option (for B.S. degree in Architecture) (See Also Pages 90-91)	Algebra, 1½ units Geometry, 1 unit (See Page 32)	Algebra, 2 units Geometry, 1 unit Trigonometry, ½ unit Science, 2 units[3] Social Studies, 2 units Foreign Language, 2 units[2]
Curricula in Art (Advertising Design, Art Education, Arts and Crafts, General, History of Art, Industrial Design, Painting, Sculpture)	Language, 2 units[1] (See Page 32)	Requirements the same as for Spring 1963.
COLLEGE OF LIBERAL ARTS AND SCIENCES General Curriculum; Curricula preparatory to Dentistry, Medicine, Veterinary Medicine. (See Also Paragraphs 1 & 2, Pages 39-40) Curricula prepara-	Language, 2 units[1] (See Page 32) Algebra, 1 unit	Requirements the same as for Spring 1963.[4]

Home Economics; Prenursing (See Also Paragraphs 1 & 2, Pages 39-40); Teacher Education Curricula (except those listed below)		
Curriculum in Elementary Education	None	None
Teacher Education, Industrial Education, Curricula Preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children (See Also Paragraph 3, Page 36, and Paragraphs 1 & 2, Pages 39-40) Forestry	Algebra, 1 unit Geometry, 1 unit	Requirements the same as for Spring 1963.[4]
Curriculum in Chemistry	Language, 2 units[1] Algebra, 1 1/2 units Geometry, 1 unit (See Page 32)	Requirements the same as for Spring 1963.[4]
Curricula in Chemical Engineering, Combined Engineering-Liberal Arts, Physics (See Also Paragraph 1, Page 39)	Language, 2 units[1] Algebra, 2 units Geometry, 1 unit Trigonometry, 1/2 unit (See Page 32)	Requirements the same as for Spring 1963.[4]
COLLEGE OF PHYSICAL EDUCATION All curricula (Physical Education for Men, Physical Education for Women, Dance, Health Education, Recreation)	Written Approval of the Associate Dean of Physical Education	Requirements the same as for Spring 1963.

[1]Foreign language requirement is waived for students who rank in the upper half of their high school graduating classes. See page 46 for change in this requirement effective September, 1964.
[2]Students with a deficiency in foreign language may be admitted on condition that the deficiency is removed during the first two years. No credit toward graduation is allowed for language courses taken to remove a deficiency in entrance requirements.
[3]Two units of science required. One unit must be in physics or chemistry. The second unit of science may be in either a physical or a biological science. General science may not be used in satisfaction of this requirement.
[4]There will be an increase in the subjects required for admission to this college beginning with Summer Session 1964. For a statement of these future requirements, please see page 45.

Therapy. (The Office of the Director is located in Room W-42 Research and Educational Hospitals, 840 South Wood Stree Chicago 12, Illinois; telephone, MOnroe 6-3900, extensic 2471.)

d. Special scholastic requirements (see pages 39-40.)

2. Physical Education:

Admission to all programs offered in the College of Physic Education requires a recommendation from the Dean of th College (for men), or from the Head of the Department Physical Education for Women. Arrangements for this require personal interview may be made by telephoning WHiteha 4-3800, extension 162, (men) or extension 72 (women).

3. Curricula Preparatory to Teaching Mentally Handicapped Childre and Deaf and Hard of Hearing Children:

For admission to each of these curricula (in addition to special scholastic requirement, see pages 39-40) a favorable re ommendation from the Teacher Education Advisor is require

SCHOLASTIC ADMISSION REQUIREMENTS

GENERAL UNIVERSITY SCHOLASTIC REQUIREMENTS

(For special requirements under the Progressive Admissions Pla and for college and curriculum requirements see pages 39-41.)

BEGINNING FRESHMEN

Residents of Illinois

Through the Summer Session 1963, a graduate of an accredited hig school who is a resident of Illinois, whose rank in scholarship is in th lowest quarter of his graduating class and who is otherwise qualifie for admission will be admitted to the University upon presentation o any one of the following evidences of ability to do satisfactory wor at the University:

1. A passing score on the ACT (American College Testing Progra Examination). (This passing score is one which indicates that th student admitted to the University by this means has approximate

one out of four chances or better of being in good scholastic standing at the end of his first semester of college work.)

OR

2. Evidence of having completed twelve or more semester hours of work at another college or university of recognized standing with a scholastic record which meets the University requirements for admission as a transfer student.

OR

3. An application for admission to a session which begins at least twelve months after the applicant's graduation from high school, provided that (a) in this twelve-month period he has not attempted as much as twelve semester hours of work at another college or university of recognized standing, and (b) that he meets all other University requirements for admission that are applicable to him, except that he shall not be required to pass the test prescribed in "1" above.

The student's rank is to be based on work completed in grades nine, ten, eleven, and the first half of twelve in the case of four-year high schools; or on work completed in grades ten, eleven, and the first half of twelve in the case of three-year senior high schools. Exceptions: If a student who ranks above the fourth quarter prior to graduation from high school drops into the fourth quarter on graduation, his scholastic rank on graduation will govern. Similarly, if a student applies for admission after having been graduated from high school, his rank on graduation will govern.

Beginning with the Fall Semester, 1963, the above requirements will apply to third quarter students as well, that is, for admission in September 1963 and thereafter all students in the lower one-half not just the lowest quarter have to meet one of the above criteria.

Nonresidents of Illinois

Beginning freshmen who are not legal residents of the State of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed on pages 30-36 and rank scholastically in the upper half of their class on graduation from high school.

TRANSFER STUDENTS

Residents of Illinois

A person who has attended another college or university of recognized standing is considered for admission to the University of Illinois on

presentation of a transcript of his record in each such college or university attended, and a transcript of his secondary school work. To be eligible for admission the student must meet the following requirements (in addition to all requirements listed on pages 30-36):

1. Students who have completed (with passing or failing grades) forty or fewer semester hours of work in a recognized college or university must have a cumulative average of at least 3.0 (C) in terms of the University of Illinois grading system. (See "Grading System," page 74.)

2. Students who have completed (with passing or failing grades) more than forty semester hours of work in a recognized college or university must have:
   a. A cumulative average of at least 3.0 (C) in all college work, in terms of the University of Illinois grading system, plus
   b. An average of at least 3.0 (C) in the last term.

3. In addition, all transfer students must present evidence of honorable dismissal from each college or university attended.

4. Exceptions:
   a. To the General University Requirements on page 30: An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the General University Admission Requirements listed on page 30, may be admitted if he presents at least thirty semester hours of credit in transfer with at least a 3.0 (C) average. However, such applicants who desire to enter the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.
   b. To the Scholastic Requirements: Students who do not meet the scholastic requirements listed in paragraphs 1 and 2 above, may petition for admission on scholastic probation provided they meet the following minimum requirements:

      (1) Students with forty or fewer hours of college work: (This exception does not apply to nonresidents of the State of Illinois or to applicants for the College of Engineering.) Less than a 3.0 (C) average but more than a 2.50 average.

      (2) Students with more than forty semester hours of college work:

         (a) Cumulative scholastic average of at least 3.0,

         (b) But less than a 3.0 average in the last term.

      Transfer students whose scholastic record is lower than that

described in paragraph 4b (1) and (2), are not eligible for admission.

c. To the Conduct Requirement: A student on conduct probation at another accredited college or university or one who has been dropped from such an institution for disciplinary reasons may be considered for admission on petition to the Committee on Student Discipline of the Senate of the University of Illinois. Such petitions should be filed with the Office of Admissions and Records.

Nonresidents of Illinois

Transfer students with forty or fewer semester hours of credit who are not legal residents of Illinois must present a collegiate scholastic average of at least 3.0 (C) in terms of the University of Illinois grading system. Those with less than a "C" average will not be admitted.

Transfer students with more than forty semester hours must meet the special provisions in paragraph 2, page 38.

SPECIAL COLLEGE OR CURRICULUM SCHOLASTIC REQUIREMENTS

COLLEGE OF ENGINEERING

Applied Arts Curricula (Architecture and Architectural Design): Beginning with the Fall Semester, 1963, new freshmen must rank in the upper half of their class; transfer students must present a collegiate scholastic average of at least 3.25 (C+).

Professional Engineering Curricula: Transfer students must present a collegiate scholastic average of at least 3.0 (C). Transfer students with less than a 3.0 average will not be admitted.

COLLEGE OF LIBERAL ARTS AND SCIENCES

For admission to certain curricula in this college, special scholastic requirements exist as described below.

1. For Beginning Freshmen:

Curriculum	*Scholastic Requirement*
Occupational Therapy, Physics, Predentistry, Premedicine, Prenursing, Preveterinary medicine	Rank in upper half of high school class

Curricula Preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children	Rank in the top quarter of hig school class

2. For Transfers from other Colleges:

Curriculum	*Scholastic Requirement*
Occupational Therapy, Predentistry, Premedicine, Preveterinary medicine, Curricula Preparatory to Teaching Mentally Handicapped Children and Deaf and Hard of Hearing Children	Collegiate average of not less tha 3.5 (Midway between "C" an "B")
Prenursing	Collegiate average of not les than 3.0 (C)

PROGRESSIVE ADMISSIONS PLAN

Because available facilities are insufficient to provide for all qualifie applicants in the Fall Semester, admission priority is granted, on th basis of scholarship, for stipulated periods as described below.

PERIOD 1: THROUGH APRIL 14, 1963

a. New freshmen who are residents of Illinois and who rank in th top twenty-five percent of their high school class.

b. New freshmen who are nonresidents of Illinois and who rank in the top fifteen percent of their high school class.

c. Transfer students who are residents of Illinois with not less tha a 3.75 average in their college work in terms of the grading system of the University of Illinois.

d. Transfer students who are nonresidents of Illinois with not less than a 3.75 average in their college work in terms of the grading system of the University of Illinois.

PERIOD 2: FROM APRIL 15, 1963 TO MAY 31, 1963

a. New freshmen who are residents of Illinois and who rank in the upper fifty percent of their high school class.

b. New freshmen who are nonresidents of Illinois and who rank in the top twenty-five percent of their high school class.

c. Transfer students who are residents of Illinois with not less than a 3.50 average in their college work in terms of the grading system of the University of Illinois.

d. Transfer students who are nonresidents of Illinois with not less than a 3.75 average in their college work in terms of the grading system of the University of Illinois.

PERIOD 3: JUNE 1, 1963 AND AFTER

All applicants, new freshmen and transfers, who meet all requirements for admission to the University.

In determining the above priorities as they apply to new freshmen, simulated rank, based upon test scores, may be used in place of actual class rank. (See below.)

The University is now operating under the Progressive Admissions Plan only in the Fall Semester. However, operation under that Plan in the Spring Semester will be instituted if and when enrollment warrants.

PROVISIONS FOR ADMISSION BY EXAMINATION

Applicants who do not meet the requirements for admission (or the admission priorities) listed on pages 30 through 40 above, may qualify for admission or for a higher priority by examination as outlined below. NOTE: This section does not apply to applicants who are deficient in the scholastic requirements stipulated for transfer students (paragraphs 1, 2, and 4, page 38). Poor college scholarship may NOT be offset by examination—only by an improved scholastic record.

USE OF TEST SCORES IN LIEU OF RANK IN CLASS

Except as noted below, whenever rank in class in high school is referred to above as a basis for admission or for establishing priority of admission, an applicant may offer evidence of scholastic ability in the form of test scores in lieu of rank in class. Acceptable test scores are those earned in the American College Testing Program examinations, or the College Entrance Examination Board Scholastic Aptitude Test.

Any student who submits scores attained through one of these testing programs which place him in a higher quarter than he would have been placed by his high school rank shall have all of the benefits

pertaining to this higher classification, including priority of admission, the waiver of requirements, and the admission to curricula in accordance with his newly established status.

Exceptions: This provision for the use of test scores in lieu of high school rank does NOT apply to students who rank in the lowest quarter of their class in high school or to nonresidents. Students ranking in the lowest quarter of their high school class must meet the requirements described on pages 36-37, and nonresidents must actually rank in the upper half of their class on graduation from high school as specified on page 37.

HIGH SCHOOL SUBJECT EXAMINATIONS

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations in high school subjects as indicated under each category. These entrance examinations are given three times a year, usually in September, January and June. Applications to take these tests must be filed in advance in the Office of Admissions and Records. However, only those students who are applying for admission to this Division of the University are permitted to write the examinations given here.

Graduates of Unaccredited High Schools:

1. Applicants who rank in the top twenty-five percent of their graduating class in an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

2. Applicants who are graduates of unaccredited secondary schools and rank below the top twenty-five percent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet General University and Specific College Admission Requirements.

Non-Graduates of Accredited High Schools

Applicants who have attended an accredited high school but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of *at least* four units of work in subjects to be designated by the University.

Applicants Who Have Not Completed Any Secondary School Work

Such applicants may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet General University and Specific College Admission Requirements.

Applicants Who Do Not Meet The Following Admission Requirements:

Total units of credit, total academic units, majors and minors, or subjects required for admission to the college of the applicant's choice may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient.

GENERAL EDUCATIONAL DEVELOPMENT TEST

Veterans of active duty with the United States Armed Forces or the United States Maritime Service and certain non-veterans who do not meet admission requirements may qualify for admission by passing the United States Armed Forces Institute high school level General Educational Development Test under the following conditions:

College of Liberal Arts and Sciences:

Applicants may qualify if their GED Test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class from an accredited secondary school and if they present credit from accredited sources in one unit of elementary algebra and one unit of geometry. Applicants whose GED scores are passing but below the minimum required for upper half classification scholastically may qualify if they present high school credit from accredited sources in two successive years of an acceptable foreign language, in addition to the required mathematics.

College of Commerce and Business Administration:

Applicants may qualify by passing the GED Test and presenting credit from accredited sources in one unit of algebra and one unit of geometry.

College of Engineering

1. Applicants for the Professional Engineering or Architecture curricula may qualify by passing the GED Test and presenting credit

from accredited sources in one unit of algebra and one unit of geometry. (Beginning with admission to the Fall Semester, 1963, an applicant must also present the required credit in science, in addition to the mathematics. See page 34.)

2. Applicants for the Fine Arts curricula may qualify as described above for the College of Liberal Arts and Sciences, except that no mathematics is required.

College of Physical Education:

Applicants may qualify by passing the GED Test and securing the approval of the Dean of the College or the Director of the Women's program as described on page 36.

Note: Beginning with admission to the Fall Semester, 1963, students qualifying by the GED Test must earn scores equivalent to those earned by students graduating in the upper half of their high school class in order to meet the higher scholastic requirements which go into effect that semester.

In addition to the above provisions, the GED Test may also be used in the following ways:

1. To establish the required entrance credit in English, in major or minor sequences, or in academic units.
2. In lieu of rank in class.

A STATEMENT OF THE BASIS FOR ADMISSION BY SPECIAL ACTION

A student who is not eligible for admission on one of the plans described above may be admitted, with the approval of the Dean of Admissions and Records and the Dean of the College he wishes to enter, providing he submits evidence which clearly establishes his ability to do satisfactory work in the curriculum in which he wishes to enroll.

NEW ADMISSION REQUIREMENTS APPROVED FOR INSTITUTION IN 1964

EFFECTIVE SUMMER SESSION 1964

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

For admission to this college Summer Session 1964 and thereafter, the following subjects will be required (in addition to the General University Requirements on page 30):

1. Algebra. Two units (Students with only one unit in algebra may be admitted with a deficiency in the advanced algebra subject to the removal of that deficiency during the first year in the college and without credit for college graduation.)
2. Geometry. One unit
3. Science (Laboratory). Two units (General science may not be used to satisfy this requirement.)
4. Foreign Language. Two units (two successive years of any one foreign language offered in an accredited high school). A student may be admitted without a foreign language but the deficiency must be made up by passing an entrance examination in a foreign language or by passing equivalent courses in college. Credit in college courses taken to remove the deficiency will not be counted toward the degree and the deficiency must be removed during the first two years.
5. Social Studies. Two units

COLLEGE OF LIBERAL ARTS AND SCIENCES

For admission to this college Summer Session 1964 and thereafter, the following subjects will be required (in addition to the General University Requirements on page 30):

1. Science. Two units (exclusive of general science)
2. Mathematics. Two units (The two units of mathematics must be one unit each of algebra and plane geometry or the equivalent as determined by the Department of Mathematics.)
3. Foreign Language. Two units (These two units must be in the same foreign language.)
4. History. Two units (Social Studies are NOT acceptable as history.)

5. One additional unit in any of the above or in Social Studies. (I the additional unit is in foreign languages, it must be the thir sequential unit in the same language.)

The foreign language requirement for admission to the Fine Arts Pro grams in the College of Engineering will no longer be waived. Al students entering these programs beginning with the Fall Semester 1964, must present two units of credit in a foreign language, regard less of their scholastic rank in class on graduation from high school EXCEPTION: Students graduated from high schools which do no offer a foreign language may be admitted without such language upon recommendation of the Dean of the College.

SPECIAL PROGRAMS FOR GIFTED STUDENTS

TALENTED STUDENT PROGRAM FOR HIGH SCHOOL SENIORS

WHO MAY PARTICIPATE

Talented seniors of Illinois secondary schools shall be permitted to enroll for courses at the University of Illinois.

RECOMMENDATIONS REQUIRED

Candidates for this program shall be recommended to the Dean of Admissions by the high school principal. The Dean of Admissions, the Head of the Department concerned, and the Dean of the College concerned shall determine whether or not the student is capable of taking certain courses for University credit. Such students shall receive University credit upon the satisfactory completion of these courses. They shall be given advanced placement when they register in the University. They shall, prior to admission to the University as full-time students, be graduated from high school and meet the other University requirements.

QUALIFICATIONS

The high school principal shall base his recommendations upon the merits of each individual case, taking into consideration the ability, grade point average, test results, and the available time of each individual so recommended.

COURSES

The courses taken by such talented seniors at the University shall be over and above the regular secondary school curriculum.

STUDY LOAD

The study load of each individual recommended for courses at the University of Illinois shall be determined by the local high school principal and the University.

OBJECTIVE

Normally, such courses taken at the University of Illinois should not be used to accelerate a secondary school student's program at the high school level, but as a means of broadening and enriching that program.

COST

Each student will be subject to tuition and fees for partial programs as outlined in the fee schedule on pages 51-52.

ADVANCED PLACEMENT PROGRAM

GENERAL POLICY

The Advanced Placement Program, administered by the College Entrance Examination Board, is designed for able high school students who are about to enter college and who wish to demonstrate their readiness for courses more advanced than those most frequently studied in the freshman year. Advanced classes are offered in many high schools in one or more of the following subjects: French, Latin, German, Spanish, English literature and English composition, American history, European history, biology, chemistry, mathematics, and physics. There is a national examination in each subject, administered by the Educational Testing Service, designed to measure the competence of the student in terms of the point at which he should begin his college study in that subject. The University encourages capable high school students to participate in the program.

The examinations are prepared by joint national committees of high school and college teachers. They are graded by other national committees on the following basis: 5, high honors; 4, honors; 3, creditable; 2, pass; 1, fail.

CREDIT ALLOWED

The University of Illinois honors the advanced preparation defined examined, and certified by the College Entrance Examination Board's Advanced Placement Program as follows:

Humanities

1. English Composition and Literature
   a. Scores of 5 and 4 receive credit for Rhetoric 101 (3 semester hours), and may receive credit for Rhetoric 101 and 102 (6 semester hours), based on the judgment of a departmental committee.
   b. Students making scores of 3 will be eligible to take the Rhetoric 101 proficiency examination which is offered by the Rhetoric Staff at the beginning of the term.
   c. Scores of 5, 4, and 3 automatically entitle students to enroll in English courses which require sophomore standing as a prerequisite.

2. French
   a. Scores of 5 or 4 receive credit for French 201 and 202 (6 semester hours).
   b. Papers with scores of 3 are referred to the department.
   c. Scores of 2 are not considered for advanced placement or credit.

3. Intermediate German
   a. Scores of 5 or 4 receive credit for German 101, 102, 103, and 104 (16 semester hours). However, any high school credit earned in German will be deducted from this total.
   b. Papers with scores of 3 are referred to the department.

4. Advanced German
   a. Scores of 5 or 4 receive credit for German 210 (3 semester hours).
   b. Papers with scores of 3 are referred to the department.

5. Latin 4
   a. Scores of 5 and 4 receive credit for Latin 105 (4 semester hours) and placement in Latin 201.
   b. Papers with scores of 3 or 2 are referred to the department.

6. Latin 5
   a. Scores of 5 and 4 receive credit for Latin 201 and 202 (6

semester hours) and placement in Latin 391.

b. Papers with scores of 3 or 2 are referred to the department.

7. Spanish

a. Scores of 5, 4, and 3 receive credit for Spanish 201 and 202 (6 semester hours).

b. A score of 2 is not considered for advanced placement or credit.

Social Studies

1. American History

a. Scores of 5 and 4 receive credit for History 151 and 152 (8 semester hours).

b. Papers with scores of 3 or 2 are referred to the department.

2. European History

a. Scores of 5 and 4 receive credit for History 111 and 112 (8 semester hours).

b. Papers with scores of 3 or 2 are referred to the department.

Mathematics and Natural Sciences

. Biology: Credit or advanced placement in biology is not allowed except on recommendation of the Division of Biological Sciences after careful evaluation of the applicant's examination paper.

. Chemistry

a. Scores of 5, 4, or 3 receive credit for the first semester of general chemistry (4 semester hours) and are permitted to enroll in the appropriate second semester course (Chemistry 104, 105, 106, 108, or 132).

b. Students who receive grades of 5 or 4 are advised to take a proficiency examination in Chemistry 104, 105, or 106, depending upon the requirement of their curricula, to determine if additional credit is to be allowed.

c. All papers with a score of 2 are referred to the Chemistry Department for consideration.

Mathematics

a. Scores of 5, 4, and 3 receive credit for Mathematics 123 (5 semester hours) and Mathematics 133 (3 semester hours). In addition, students are given advanced placement in Mathematics 143.

b. For a score of 2, students are granted 5 semester hours of

credit in Mathematics 123 and advanced placement in Math
ematics 132 or 133. These students will, for a time, be cover
ing material in calculus which is familiar to them, but durin
this period of time they will be expected to cover, on thei
own, any topics in analytical geometry which were not cov
ered in their high school courses.

4. Physics: All papers will be referred to the department for consid
eration on an individual basis.

EDMUND J. JAMES SCHOLARS

From each freshman class entering the University of Illinois, there i
selected a group of superior students designated as the Edmund J
James Scholars in honor of one of the University's most distinguishe
presidents. The James Scholars will have available resources of th
University not normally utilized by the average college student. Hon
ors courses which are consistent with the student's superior abilit
and which challenge his intellectual development will be made avail
able at an increasing rate. Thus the program offers unusual oppor
tunities for able and industrious students and provides a good back
ground for graduate and professional study. It is not mandatory that
James Scholar take a full schedule of honors courses. He may wish t
restrict himself to those which he feels he is capable of handling. How
ever, a James Scholar is expected to carry at least one honors cours
every semester when such courses are available to him. James Scholar
may be dropped from the program at their own request or for poo
performance as students.

Although no monetary award is presently given to James Scholars
most of them are eligible for one or more of the scholarships that ar
available through national, state, or University sources. Consequently
students who need financial assistance should apply also for monetar
scholarships.

Seniors in Illinois high schools who stand in the top 15 per cent o
their class are eligible to apply for admission to the James Scholar
program. This does not mean, however, that applications of student
from high schools in other states are not considered. Students wh
have already graduated are eligible as entering freshmen, and som
students not initially chosen as freshmen may be added to the pro
gram as it expands into four years.

The final selection of James Scholars takes into consideration hig
school grades; performance in aptitude and achievement tests; othe
test scores and the recommendation of high school principals an
counselors.

Results of the ACT (American College Testing Program) are most important in determining eligibility for designation as a James Scholar.

Further information about the James Scholar program and applications for designation may be obtained by addressing the University Honors Programs, Room 40B, Navy Pier, Chicago 11, Illinois.

TUITION AND FEES

GENERAL STATEMENT

Tuition and fees are due and payable in full when the student registers for classes at the close of New Student Week. The amount of tuition and fees assessed varies depending on the session in which the student registers and on the study load (number of credit hours) he carries. In addition, tuition (but *not* the special fees) varies, depending on whether or not the student is a legal resident of Illinois. Students entering the University for the first time are asked to make two special deposits: *First,* a tuition and fee deposit to assure reservation of space in the entering class; and *second,* a general deposit. More detailed information about these deposits and about the special fees appears immediately following the table of tuition and fees.

TABLE OF TUITION AND FEES

REGULAR SEMESTER (SIXTEEN WEEK SESSION):

For Full Programs (More than 10 semester hours)

	Range I	
	Illinois Resident	Nonresident
Tuition	$85.00	$260.00
Service Fee	17.00	17.00
Hospital-Medical-Surgical Insurance	8.00	8.00
Activities Fee	10.00	10.00
Total	$120.00	$295.00

For Partial Programs

Range II		Range III	
Above 5 up to and including 10 sem. hrs.		5 or fewer sem. hrs.	
Ill. Res.	Nonres.	Ill. Res.	Nonres.

Tuition	$60.00	$180.00	$35.00	$105.00
Service Fee	12.00	12.00	10.00	10.00
Hospital-Medical-Surgical Insurance	8.00	8.00	8.00	8.00
Activities Fee	10.00	10.00	7.00	7.00
Total	$90.00	$210.00	$60.00	$130.00

EIGHT-WEEK SUMMER SESSION

For Full Programs (More than 5 semester hours)

	Range I	
	Illinois Resident	Nonresident
Tuition	$45.00	$130.00
Service Fee	11.00	11.00
Hospital-Medical-Surgical Insurance	4.00	4.00
Activities Fee	5.00	5.00
Total	$65.00	$150.00

For Partial Programs

	Range II Above 2½ up to and including 5 sem. hrs.		Range III 2½ or fewer sem. hrs	
	Ill. Res.	Nonres.	Ill. Res.	Nonres.
Tuition	$30.00	$90.00	$20.00	$55.00
Service Fee	6.00	6.00	4.00	4.00
Hospital-Medical-Surgical Insurance	4.00	4.00	4.00	4.00
Activities Fee	5.00	5.00	2.00	2.00
Total	$45.00	$105.00	$30.00	$65.00

THE TUITION AND FEE DEPOSIT

This deposit is $30.00 and must be paid by each new undergraduate student prior to receipt of a permit to enter. This is not an additional cost for attending the University, but is applied to the student's tuition and fees for the semester to which he is admitted. The deposit **should not be sent until requested by the University.** It is nonrefundable except in very special cases; for example: it will be refunded after registration to students holding scholarships covering *both* tuition and fees.

THE GENERAL DEPOSIT

This deposit is $5.00 and is paid by each student at the time of his first registration at the Chicago Undergraduate Division. Chargeable against this deposit are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory equipment, etc. All such charges incurred by a student during a specific semester or session will be assessed the next registration in order that a student will have $5.00 in his general deposit account at the beginning of each semester in which he registers. Any balance in the deposit is returned to the student if he officially withdraws from the University. This refund is made after the close of registration for the next semester following the student's withdrawal.

HOSPITAL-MEDICAL-SURGICAL INSURANCE FEE

This fee is assessed all students. However, a student who presents evidence of participation in a group insurance system providing benefits equivalent to those covered by the University fee may petition through the Office of the Dean of Students, during the first ten days of instruction (first five days in the summer session), for a refund of this fee. Refunds are not given on *any* other basis, even withdrawal from the University, although in this instance the student who withdraws remains insured for the balance of the semester.

ACTIVITIES FEE

This fee is used to finance the Student Activities Program. It is paid by all students attending the Undergraduate Division and entitles them to attend all Undergraduate Division plays, concerts, cinema series, forum series and varsity games admission free.

SERVICE FEE

All students attending the University pay a service fee which at this Division covers operating expenses for the Student Union and financing for the Union building.

MISCELLANEOUS FEES

Identification Card

Each student, on payment of tuition and fees each semester, receives an identification card for use in obtaining library books, locks, towels, and other equipment. A fifty cent fee is charged for the replacement of lost or destroyed identification cards.

Deferred Fee Charge

Arrangements for deferred fees are made directly with the cashier. A charge of $2.00 is assessed for the privilege of deferring fees. This charge is not refundable and must be paid on the day of registration.

Change Fee

For every change of program slip issued at the request of the student, the fee is.....$1.00

Transcript Fee

Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record. For each additional transcript the fee is.....$1.00

Late Registration Fine

All students who complete registration after classes begin must pay a late registration fine of.....$15.00

Special Examination Fee

For any special examination given in a course which has been failed, the fee is.....$10.00

Fee To Visit Courses

The privilege of attending classes as a visitor is granted only by permission of the instructor of the class with the approval of the Associate Dean of the college concerned. Visitors may never write examinations for credit in courses they have visited, nor may they visit laboratory courses. No visitor's fee is charged a registered student on a full-fee schedule. Visitor's fee for each course.....$15.00

Military Deposit $10.00

Each student receiving military equipment must make this deposit at the time of issuance. The deposit is returned to the student upon the return of the military equipment at the end of each school year.

Non-Credit Course Fee

For students whose study load places them in Range I of the tuition and fee schedule, there is no charge for non-credit courses taken in addition to their regular program. Students whose study program places them in Range II or Range III of the tuition and fee schedule

pay $15.00 for each non-credit course taken in addition to their regular program. Persons registering in non-credit courses only will be assessed Range III tuition and fees.

REFUNDS OF TUITION AND FEES

Students who withdraw from the University are authorized a rebate of a portion of the tuition and fees paid. The amount rebated is determined by the date of withdrawal.

During the first ten days of instruction in a regular semester the full amount of tuition and fees assessed, except for a $30.00 non-refundable charge, is rebated. If the total assessment was less than $30.00 (e.g. a student on a tuition waiver scholarship) the full amount of the assessment, if any, is non-refundable. After the tenth day of instruction and before the middle of the semester, half the tuition and fees assessed, less the non-refundable charge, is rebated. After the middle of the semester, no rebate is made.

In the Summer Session a similar rebate schedule exists, adjusted, of course, for the length of the session. During the first five days of instruction in the Summer Session the full amount of tuition and fees assessed, except for a $15.00 non-refundable charge, is rebated. If the total assessment was less than $15.00 (e.g. a student on a tuition waiver scholarship) the full amount of the assessment, if any, is non-refundable. After the fifth day of instruction and before the middle of the Summer Session, half the tuition and fees assessed, less the non-refundable charge, is rebated. After the middle of the Summer Session no rebate is made.

Persons visiting courses who withdraw within ten days after paying their fees may receive a full rebate of the visitor's fee. No rebate is allowed after this date.

A student who withdraws from one or more courses and thereby reduces his registration to a lower range receives a rebate of the full amount of the difference in tuition and fees specified for such schedules provided the changes are made during the full rebate period. One-half the above difference is rebated if the changes are made during the period for half rebate. Thereafter, no rebate is allowed.

SCHOLARSHIPS

College scholarships at the University of Illinois as elsewhere are limited in number and are awarded to the best qualified applicants.

While each scholarship may specify certain restrictions, nearly all of them involve the following considerations: (1) a good record as a student, and (2) evidence of financial need. In this connection, the applicant is usually required to furnish information concerning his own financial status *and* that of his parents or guardian.

APPLICATION FOR SCHOLARSHIPS

Most scholarships are awarded on an annual basis in late spring or early summer for the following school year. Applications for fall semester awards should be made as soon as possible after January 1. For the limited number of awards granted for the Spring Semester, applications are accepted after October 1. Students currently enrolled in the University of Illinois may file an application at any time their scholastic averages are 3.75 or higher.

Questions concerning scholarships may be referred to the Office of Admissions and Records (Room 15), the Dean of Students, or the Dean of Women (Room 313).

KINDS OF SCHOLARSHIPS

Several types of scholarships are available. With the exception of the Military Scholarships, most awards are based upon both need and academic accomplishment. (See page 58.)

University Scholarships. Since the University of Illinois is a state supported institution, most of its scholarships are restricted to Illinois residents. Even so, the University does have some funds that can be used for out-of-state scholarships.

Some grants are made in cash, while others simply exempt the recipient from the payment of tuition and/or certain other fees. Nearly all scholarships are granted on an annual basis and many are subject to renewal provided the student maintains the required scholastic average.

Entering freshmen applying for these scholarships must rank in the top quarter of their high school class and be in need of financial assistance. Students already enrolled in college must have an average of 3.75 ("B" minus) or better in college-level courses.

Work Scholarships for Superior Students. The Committee on Undergraduate Scholarships, under authority from the Board of Trustees, selects worthy entering freshmen each year for the Work Scholarship Program.

WITHDRAWAL AND TRANSFER

WITHDRAWAL FROM THE UNIVERSITY

Students leaving the University before the end of a semester or session must obtain withdrawal papers at the office of the Dean of their college. Failure to do so will result in the student being dropped for poor scholarship at the end of the semester. Students who withdraw within the last three weeks of instruction in the regular semester, or the last seven days of instruction in the eight-week Summer Session are required to petition for readmission.

TRANSFER TO URBANA

Students at this Division who intend to transfer to Urbana may do so by securing a release from the Dean of their College on this campus. This release form is then taken to the Recorder, Room 15. *Note:* Architecture and Architectural Engineering students may transfer to Urbana only when they have reached the point in their curriculum at which they can no longer obtain a full program of studies on this campus. (Normally this is after completion of the first five semesters of the curriculum.) All male students under twenty-two years of age transferring to Urbana before completing sixty semester hours of college credit are required to earn four semesters of credit in Military Science unless specifically exempted, or unless they have prior to transfer earned such credit through the voluntary ROTC program on this campus. (See page 113.)

SPECIAL INFORMATION FOR VETERANS

The Chicago Undergraduate Division has been approved to offer training under Public Law 894 (Vocational Rehabilitation), Public Law 550 (Korean GI Bill) and Public Law 634 (Benefits for Children of Deceased Veterans). Questions concerning benefits under these laws may be referred to the Veterans Section, Office of Admissions and Records.

CREDIT FOR MILITARY SERVICE

The University, under general provisions administered by the All-University Committee on Admissions, recognizes for college credit certain training and experience in the Armed Forces. The completion

of military service in the Air Force, Army, Marine Corps or Navy of the United States, including basic or recruit training of six months or more is accepted in lieu of the general University requirements of four semester hours of credit in Military Science and four semester hours of credit in Physical Education. Credit for work taken in college training programs, in technical schools, and in other courses pursued while the veteran was in service may be transferred upon the basis of evaluation by the Office of Admissions and Records. No credit is allowed on college level General Educational Development Tests.

MILITARY SCHOLARSHIP

Any person who served in the Armed Forces during World War I or any person who served in the Armed Forces at any time after September 16, 1940, and received an honorable discharge may qualify for a four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time he entered service. No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and Records, Room 15, Window E. The Illinois Military Scholarship may not be used during any period when the veteran is receiving financial aid for his education from the United States Government.

SELECTIVE SERVICE DEFERMENT

The Office of Admissions and Records will supply the required certificates for students who wish to apply for educational deferment under the regulations of the Selective Service System. Information concerning educational deferments is available at Room 15, Window E.

University Services

The University's interest in the individual student extends beyond the classroom to include the personal adjustment of each student to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling; extracurricular activities, both social and cultural; and advice and instruction in healthful living.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division. Before registration, the student is encouraged to avail himself of the services of the Dean of Admissions, the Dean of Students, the Dean of Women, the Student Counseling Service, and the dean of his college for information and advice needed to insure wise planning for his college career.

At registration time, an advisor helps the student select and arrange his courses, and special meetings afford him the opportunity to meet the deans. The deans of the various colleges, the heads of departments and all members of the faculty devote a large part of their time to advising students concerning their classroom work and programs. Students are urged to discuss special educational problems with their instructors, who hold scheduled office hours for conferences with individual students. The areas of concern relating to student welfare outside the classroom are handled chiefly by the Dean of Admissions, the Dean of Students, the Dean of Women, and the Student Counseling Service.

OFFICE OF THE DEAN OF STUDENTS

The Dean of Students is in charge of most matters of student welfare and extracurricular activities. As part of his organization, the Dean of Men, the Dean of Women, Coordinator of Foreign Students, and their assistants are general advisers to whom students may turn for assistance and advice. These advisers help with personal problems, part-time employment, scholarships and other financial aids, extracurricular activities, clubs and organizations, accident and health insurance, housing, special problems and regulations concerning foreign students, planning and organizing special events and all-University social functions, interpretation of University regulations and many other matters. Besides being available for daily counseling, the staff members advise student groups, serve on committees and assist

professional groups. The offices of these advisers are open to any student for individual conferences, as well as for inquiries from parents and guardians.

LOANS

Funds for loans are available to assist students in the financing of their college education. Several attractive plans are in operation at the University of Illinois.

FEDERAL LOANS

The National Defense Education Act of 1958 makes available substantial federal funds for loans to superior students. The maximum amount is determined by the need of the student, and may not exceed $1000 per year, to a total of $5000. Special consideration is given students who express a desire to teach in elementary or secondary schools. Preference is also given those whose academic background indicates a superior capacity or preparation in science, mathematics, engineering, or a modern foreign language. To be eligible at this University, a new freshman must rank in the upper quarter of his high school graduating class, while a transfer student must have a college average of 3.75 (B—) or above on the Illinois five point system. Students currently enrolled in the University of Illinois and progressing satisfactorily toward a degree may be eligible.

UNIVERSITY LOANS

The University of Illinois offers several types of loans to students. Both long and short-term loans are available.

Long-term University Loans. Usually these loans are available to students who have completed a semester or more at the University with a satisfactory record. For any one student the maximum amount of loan that may be outstanding at one time is $2500.

Short-term University Loans. These emergency loans may be requested by new students as well as by those who have been on campus a year or more. Loan amounts range from $5.00 to $100.00, and must be repaid by the end of the semester in which the loan is granted.

Emergency Aid. Any worthy student in immediate need because of an emergency may apply for aid in any amount from $0.25 to $5.00. Repayment is arranged between the borrower and the Dean of Students.

Application blanks and detailed information regarding all loan

funds may be obtained from the Dean of Students or the Dean of Women (Room 313).

EMPLOYMENT

Students who need to work part time will find a variety of opportunities available, and while this office cannot guarantee a job, a sincere effort is made to place all deserving students. Job opportunities both on and off campus are listed with and handled by the Student Employment Office. Earnings range from $1.05 to $2.65 per hour depending on qualifications and experience required.

Application forms and detailed information may be obtained from the Student Employment Manager in the Office of the Dean of Students (Room 313). Usually job referrals are made only after the student has registered for academic courses, but a new student who has been admitted and has a registration permit may file an application for employment.

HOSPITAL-MEDICAL-SURGICAL INSURANCE

The University of Illinois requires all students to have accident and health insurance, and to pay the insurance fee at registration. If desired, a married student may elect to extend this coverage to include his (her) spouse and/or unmarried children under nineteen years of age. Application for dependent coverage must be made to the Cashier's Office (Room 12-A) within the first two weeks of instruction each semester (or the first week of summer session). An eligible new dependent may be insured on the date application is made and proper premium is paid to the University Cashier within ten days after the new dependent is acquired. Summer insurance is available to students not in attendance in the summer session, but application must be made and the required fee paid to the Cashier between May 15th and the summer session enrollment date. For further information concerning the student insurance program, telephone WHitehall 4-3800, extension 103 or 104.

STUDENT COUNSELING SERVICE

The services of counseling and clinical psychologists are available to students at the Student Counseling Service. Psychological testing and counseling services are available to help students make more effective use of their intellectual and personality resources. Appointments for interviews are made by the departmental receptionist.

Students bring a variety of problems and concerns for consideration with the aid of their counselors: planning their vocational future,

improving their reading and study skills, learning to cope with personal or family problems, promoting their development as persons, and establishing better relations with others.

The following paragraphs describe specific programs of the Student Counseling Service.

A. *Pre-Entry Counseling and Testing.* The Counseling Service offers a program of testing and counseling to all graduating high school seniors who have completed the American College Test and the Strong Vocational Interest Test which are required of students making application for admission to the University (see p. 31). This program attempts to assist the student in determining which college or curriculum of the University best meets his needs, in formulating his educational and vocational goals, and in clarifying his thinking on how to make a good start on his college work. If so indicated, further testing, on an individual basis, may be arranged after consultation with a counselor.

The Freshman Guidance Examinations measure skill in reading comprehension, in reading speed, and in vocabulary usage, and attempt to identify areas of academic interest. In addition the results of the American College Test and the Strong Vocational Interest Test will be available for interpretation to the student. The latter tests will be used to help the student assess his aptitude for college studies and identify his interests in various occupational patterns.

The various test profiles are evaluated in an individual interview with a counselor who will help the student use test information as one basis for making his own decisions about the kind of college work he should undertake or whether other types of post-high school educational and training facilities should be explored.

B. *Individual Educational Counseling.* During the months prior to his initial registration, or during Orientation Week, each entering freshman completes a battery of tests. Review of his test scores with a counselor may help the student toward a more realistic self-judgment of his academic strengths, handicaps, and goals. Opportunities for further testing are provided upon the recommendation of the counselor. Early recognition of deficiencies or of special talents may direct the student's efforts toward needed remedial work, or toward fuller use of his special abilities. A student may be concerned about how well his abilities and interests match the particular curriculum in which he is planning to enroll, or he may inquire into his fitness for some other program of studies. Counselors also make available information about other

colleges and universities, professional schools, graduate education opportunities, and special training programs.

C. *Reading Improvement Groups.* A Reading Clinic is maintained for students wanting to increase their rate of reading or improve their vocabulary and comprehension skills. The Reading Clinic offers programs for the better-than-average student who wishes to read faster and more effectively, as well as for the student in need of remedial training.

Pre-tests are administered, and reading instruction is based on individual needs as indicated by test results. Periodic retests are given to measure progress, and work is terminated when the student has achieved his own goals.

D. *Academic Achievement Groups.* "How to Study" groups which focus on helping students learn more effective approaches to their academic work. This is done through group discussion, demonstration of sound techniques, and laboratory practice. The program includes attention to such techniques as analyzing and evaluating reading selections, improving concentration and memory, developing expanded vocabulary, outlining and notetaking, and preparing for examinations.

To meet the particular concerns of entering freshman, special sections are offered which aim to help them clarify their new roles as commuter students in an urban University, academic adjustment, growth in personal adequacy, and development in social relationships.

To meet the particular concerns of entering freshmen, special sections are offered which aim to help them clarify their new roles as commuter students in an urban University in the areas of academic adjustment, growth in personal adequacy, and development in social relationships.

E. *Individual Vocational Counseling.* This service is offered students who have not yet formulated a decision concerning their future work, or who are considering a change in plans. The counselor seeks to help the student clarify his own vocational goals and the factors in his personal situation which need to be considered in choosing a vocation. Available guidance test scores are appraised, and additional tests may be assigned to meet the special needs of the student. In addition to test interpretation, the counselor can assist students in securing information about vocational trends and about educational and training requirements for various occupations.

F. *Career Planning Groups.* Voluntary study groups for students who

want to clarify their vocational goals. Discussions and individual testing focus on self-evaluation of abilities, interests, and personal needs as bearing on occupational choice.

G. *Counseling Groups for Foreign Students.* Opportunity for foreign students to discuss in groups problems of mutual concern which are presented by their need to find a place in the intellectual and social life of the University and their host country.

H. *Personal Counseling.* Clinically trained psychologists assist students in the solution of personal and emotional problems. Students who wish such help may make an appointment for personal counseling. The staff recognizes and protects the confidential nature of the counseling interview.

THE SPEECH IMPROVEMENT LABORATORY

The services of the Speech Improvement Laboratory are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who have foreign accents, hearing deficiencies, or vocal, rhythmic, or articulatory problems are aided by the Laboratory, which also assists students with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical, teaching, or speech careers are aided in meeting professional speech requirements. There are no fees for these services, but some students may be asked to purchase a blank recording disk in order that permanent recordings of their voices may be made. The Speech Improvement Laboratory is located in the Student Counseling Service area on the third floor. It is advisable to make appointments in advance.

UNIVERSITY LIBRARY

The University Library provides all the books, related materials, and professional services that meet the needs of students and faculty for information, research, recreation, and stimulation of the mind.

At present the book collection totals over 100,000 carefully chosen volumes. The Library is receiving yearly over 850 periodicals and several indexing service publications. Back files for many of these titles have been bound and are available for permanent reference use on open shelves. An excellent collection of 8,000 general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories has been assembled. Extensive collections of pamphlets, vocational guidance materials, and college catalogs are

provided. A depository collection of U.S. Government publications from September, 1957, to date is available. More than 25,000 army, topographical, and state highway maps are also to be found. A comprehensive card catalog and modern microprint and microfilm reading machines are available. The Library also has the catalogs of the U.S. Library of Congress, Bibliothéque Nationale of France, and British Museum.

As an added service for students and faculty, the Library maintains a photo reproduction facility. A nominal fee per page is charged for this service.

The main emphasis of the Library is placed on individual, personal service to faculty and students through general reference and reader's advisory assistance plus the library staff liaison with the teaching program and student activities. Formal and informal instruction in the use of library resources and facilities is offered to all undergraduates. Displays of new and outstanding books of special and unusual interest are maintained in the reading rooms and on the bulletin boards in the lounges and corridors.

Library assignment.

The Library has several service areas. (1) The open-shelf Main Reading Room handles the basic collection and is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities in addition to well-lighted study space for several hundred readers. It also contains the foreign language collection and the circulating collection of phonograph recordings. (2) The Fine Arts Reading Room is at the far east end of the Pier on the second level. It contains the collection of art, architecture and music books and offers special facilities for listening to musical and nonmusical recordings via earphone as well as in the soundproof Library Listening Room. A free lending service of reproductions of famous paintings is available from the Circulation Department.

Time for a snack.

While classes are in session, the Main Reading Room is open Monday through Friday from 8 a.m. to 4:30 p.m., and the Fine Arts Reading Room is open Monday through Friday from 8:30 a.m. to 4:30 p.m. During intersession and vacation periods, the Main Reading Room and the Fine Arts Reading Room operate on an 8:30 a.m. to 4:30 p.m. schedule.

FOOD SERVICE

The University operates nonprofit food service facilities for the convenience of students, faculty, and staff. The student cafeteria

serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the building. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the building, adjacent to the reception lounge. In addition, a dining room at the east end of the building offers cafeteria-style service to members of the faculty and staff.

UNIVERSITY BOOKSTORE

The University Bookstore is operated by the University to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8:30 a.m. to 6 p.m.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Medical examinations are required of all students prior to the time of their first registration. The medical examination may be done by your family physician at your own expense; or at Student Health Service without expense, if appointment is made and examination is completed fifteen days prior to registration. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students without charge.

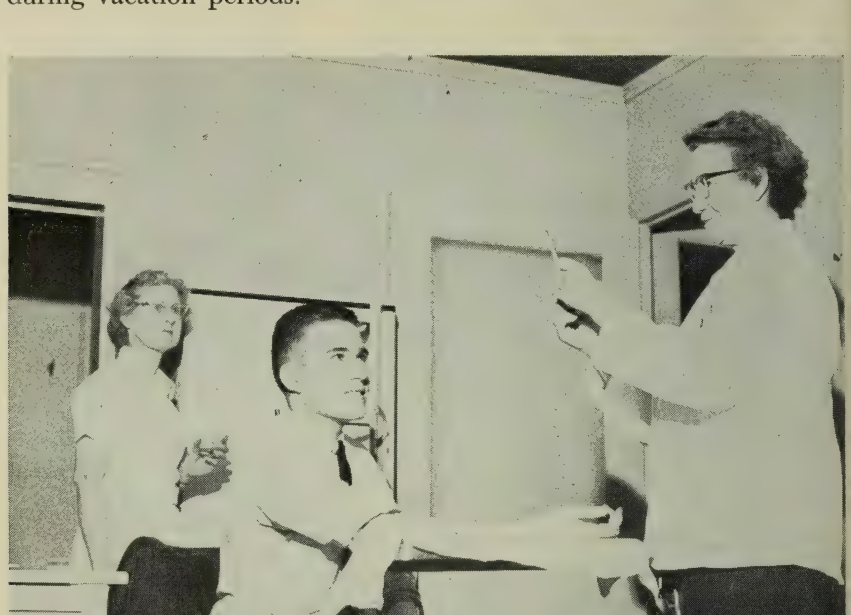
The staff of physicians also instructs classes in hygiene and environmental health. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations, except for mental health.

The discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems.

The Mental Health section of the Student Health Service provides consultation and treatment for students with personal, social, family or study problems. Many students are not able to study effectively because of nervous tension, depression, insomnia or other signs of emotional disturbance. Even if the student is in doubt whether his problem requires psychiatric help, he is welcome to make an appoint-

ment to discuss the problem and to see whether such help is needed. All problems are kept in strict confidence. Appointments may be made by calling Extension 105 or inquiring at the Student Health Service.

The Health Service is located on the third floor at the east end of the Pier. The office is open from 8:00 a.m. to 5:00 p.m. daily and during vacation periods.



Are you sick?

EXTRACURRICULAR ACTIVITIES

Extracurricular activities are recognized as an important part of the student's life and are encouraged as an adjunct to curricular courses, in order to develop individual talents and qualities of leadership, personality, and character. All questions pertaining to extracurricular activities should be directed to the Office of the Dean of Students, Room 313.

CLUBS AND ORGANIZATIONS

Over 50 student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of their own membership and plan programs for the entire

student body. Interested students not on scholastic probation are invited to join the club or organization of their choice. The majority of student groups meet weekly or twice monthly during the scheduled activity hour on Tuesday of each week and on the second and fourth Thursdays of each month.

To avoid conflicts in scheduling student and University events, the Office of the Dean of Women prepares, with the assistance of the faculty and students, the Campus Events Calendar which is published by the University Bookstore. Social and special events are scheduled in the Office of the Dean of Women.

Opportunities for practical experience in journalism are provided by the weekly student newspaper, the *Pier Illini,* written and edited by students. Winner of eight All-American awards presented by the Associated Collegiate Press, *Pier Illini* is open to all students with an interest in any form of writing, art, photography, etc. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph,* the University of Illinois engineering periodical. Contributions of student members to the publication of the UIC Writers Club, *Mosaic,* and of members of Alpha Lambda Delta in producing *Chi-Illini Cues* likewise offer opportunities to students interested in journalism.

The Pier Glass, published once each semester, is a magazine of the best themes written in freshman rhetoric. The ten or twelve students whose essays are chosen receive prizes, as well as the honor of being represented in the anthology and the satisfaction of seeing their work in print. Competition is keen, and every rhetoric section spends a class meeting in friendly criticism of the current issue, comparing the merits of the prize-winning papers.

Cultural programs which supplement classroom work for students are offered by the Activities Honorary Society, the Cadet Association, Circle K (college level men's service organization sponsored by the Kiwanis), Pi Kappa Delta (national forensics honorary), Pershing Rifles, and the Student Education Association. Similar purposes are served by three language clubs, and the Amateur Radio, Biology, Chess, Commerce, Geology, Humanities, International Relations, Inter-Varsity Christian Fellowship, Jazz, Lithuanica, Ukrainian, Mathematics, Newman, and Ski Clubs. Engineering, architecture, chemistry, occupational therapy, pre-dental, pre-law, and pre-medical students may take part in the activities of their respective professional societies. Several are affiliated with national professional organizations. Athletic and physical education organizations include the Varsity Lettermen's Club, Men's Physical Education Majors Club, the Cheerleaders, Orchesis (the modern dance organization), the Women's

Athletic Association, and the Women's Physical Education Majors Club. Phi Eta Sigma and Alpha Lambda Delta encourage high scholarship among freshman men and women.

Opportunities for experience in music and drama are available through membership in the University Band, the University Choir, the University Orchestra, and the Pier Playhouse. Students who enroll in the musical organizations at registration and meet other requirements may earn academic credit for this work if they so desire. Several musical programs and plays are presented publicly each year.

All-University dances—informal and semi-formal—are planned, supervised, and sponsored by the University Dance Committee. This committee also assists in planning the Registration Dances and student mixers, as well as assisting the special committees appointed in planning the annual Homecoming and Spring Carnival.

UNIVERSITY CINEMA SERIES

Through the University Cinema Series program, students and staff have the opportunity to view motion picture classics at no cost. They are normally scheduled once a month in the third floor lounge.

FORUM SERIES

Each year six all-University programs are presented in the Auditorium under the direction of the Forum Series Committee. The Forum Series gives students the opportunity to hear distinguished speakers and to see and hear cultural programs of general interest. The programs are financed by a portion of the student activity fee. Admission is free to all students within the seating limitations of the Auditorium. Selection of programs and other administrative details of the series are the responsibility of the Forum Series Committee.

Forum Series programs are usually presented during the activity hour on the first or third Thursday of October, November, December, February, March, and April. Special programs are arranged to meet occasions of special significance.

FORENSICS

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating, discussion, and individual events. All students, including those without previous experience, may take part in the forensic activities.

The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition

is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the area have included colleges and universities from Indiana, Texas, Iowa, Michigan, Missouri, Ohio, and New York. Speakers from the Chicago Undergraduate Division also attend tournaments in Illinois and nearby states, where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition. It has won the Chicago Area, the state, and the regional championships, and in 1952, 1953, 1954, 1956, and 1958 represented the East Central States area in the national championship tournament at West Point, New York.

Problems of national and international interest are the topics for public discussion and panel presentations, both on and off campus. These programs, usually followed by audience participation, are sometimes joint presentations with other colleges and universities. Chicago Undergraduate Division speakers are often featured on adult forum programs.

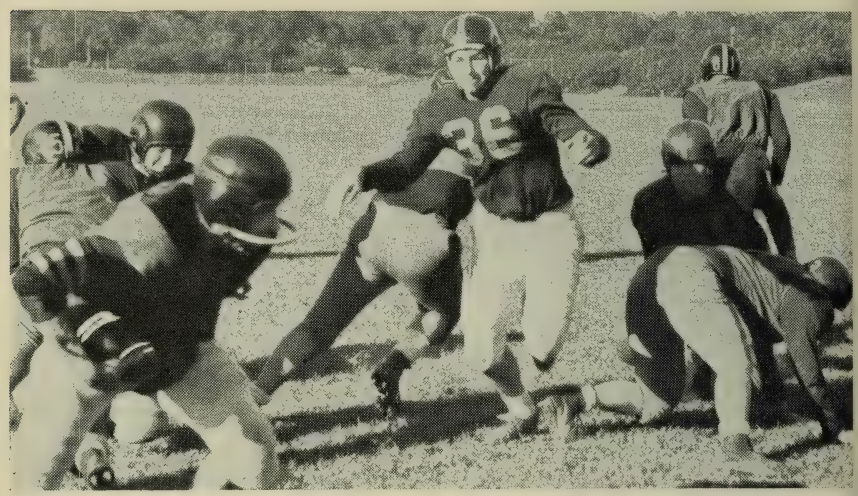
The Chicago Undergraduate Division serves as national headquarters for the National Contest in Public Discussion. It holds membership in the Illinois Intercollegiate Debate League, the Illinois Intercollegiate Oratorical Association, the Chicago Area Debate League, and Pi Kappa Delta. The last of these is a national honorary with 33,000 members and chapters in approximately 270 colleges and universities.

The Chicago Undergraduate Division has been host for some noteworthy forensic events. The Cambridge university debate team met two UIC speakers before an audience of 2,200 in the fall of 1955, and in the spring of 1957 the annual tournament of the Illinois Intercollegiate Debate League was held on this campus. The annual Freshman-Sophomore tournament in December has attracted as many as fifty-five visiting colleges from eight states, and the annual tournament for high schools in January includes leading teams located within seventy-five miles of Chicago.

ATHLETICS

The Chicago Undergraduate Division, a charter member of the Gateway Athletic Conference, participates in eleven varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, soccer, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen in good standing are allowed to participate in varsity sports.

A special feature is the extensive intramural program in which students can elect to take part in wrestling, badminton, table-tennis, volleyball, basketball, gymnastics, handball, weight-lifting, tennis, archery, bowling, swimming, and softball. The intramural and intercollegiate programs are under the supervision of an Athletic Committee of student and faculty representatives. Both programs are fi-



The fighting Chi-Illini.

nanced through funds from student activities fees. The Chicago Undergraduate Division Gymnasium, adjacent to the entrance of the main building, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the gymnasium which has floor space for eight full-size basketball courts.

A staff of eighteen coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

HONORS

Students who achieve a grade average of 4.5 during the freshman year may be eligible for membership in one of the national scholastic honor fraternities. Women who make an average of 4.5 in 15 hours of academic work during their first semester, or an average of 4.5 in 30 hours during their first year, may be initiated into Alpha Lambda Delta. Men whose average is 4.5 based upon 12 or more hours in the

first semester, or 4.5 for the entire freshman year, are eligible for membership in Phi Eta Sigma.

Additional honors include: The Ernest C. VanKeuren award (for excellence in the humanities); the B. B. Freud award (for excellence in chemistry); the Roscoe E. Harris award (for excellence in physics); and the Dean's List of the individual colleges (for all students with grades of "B" or better in all courses).

HONORS DAY

Honors Day is observed at the Chicago Undergraduate Division as an occasion upon which public recognition is given those students who excel in scholarship. The families and friends of the honor students are invited to attend the annual convocation, in which students and members of the faculty participate. The printed program contains the names of students to whom honors have been awarded and also the elections to those honorary societies which meet the standard of scholarship approved by the Senate Committee on Honors.

Two types of honors are awarded: Class Honors and College Honors. To be eligible for Class Honors, a student must be in the highest ten percent of his class in his college and have not less than a 4.0 average. To be awarded College Honors, a student must be in the highest three percent of the class and have a minimum average of 4.5. Grades used in determining honors for students are those on file in the Office of Admissions and Records.

The West Campus—Navy Pier Park.

General University Requirements

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be started in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Men and women entering the University with fewer than sixty semester hours of credit are required to secure four semesters of credit in physical education including the amount transferred. Those entering with sixty semester hours or more are exempt from the requirement in physical education.

2. Two semesters of rhetoric (Rhetoric 101 and 102) are required. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric, Rhetoric 200.

THE GRADING SYSTEM

The following grades are given in the University of Illinois: A—Excellent, B—Good, C—Fair, D—Poor (lowest passing grade), E—Failure. The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean of his college and on payment of a fee of $10 (but not within ten days of the final examination period), or he may take courses in sequence, with the approval of the department.

Other symbols in use are:

W—Withdrawn from the course without penalty.

Ex—Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee,

but becomes a failure if not removed during the first semester that the student completes in residence following the giving of the grade of "Ex.")

Ab—Absent from the final examination without excuse; counts as a failure. See under "Failure" for method of earning credit in a course in which an "Ab" grade has been received.

Rep—Replaces grade of "Ex" when course in which "Ex" grade was received is repeated by the student.

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A=5 grade points; B=4; C=3; D=2; E=1; Ab=1. To compute the grade point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn three hours of A, six of B, three of C, two of D, and four of E, the computation of your grade point average is as follows:

Grade	Hours	Weight	Grade Points	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	
E	4	1	4	
	18		56	$\frac{56}{18}=3.11$

Your grade point average is 3.11.

Definition of a Semester Hour. In the University, a semester hour of credit represents one classroom hour of fifty minutes weekly of the student's time for the duration of one semester in lecture or recitation, plus the time necessary for preparation; or a longer time in laboratory or other exercises for which outside preparation is not required. It is expected that most students will spend two hours preparation for one hour a week of lecture or recitation. Each University semester hour credit is thus understood to represent at least three hours of the student's time, and the credit value of a course is calculated in semester hours on that basis.

PROFICIENCY EXAMINATIONS

Proficiency examinations, similar to the regular semester examinations, are available in courses normally open to freshmen and sopho-

mores; the student must obtain the consent of the head of the department concerned. There is no fee charged for these examinations. A student who passes a proficiency examination is given credit toward graduation, provided that this does not duplicate credit counted for his admission to the University and the course is acceptable in his curriculum. The grade in proficiency examinations is "pass" or "not pass," but no student is given a grade of "pass" unless he has made at least "C" in the examination. No official record is made of failures in these examinations, and grades received on proficiency examinations are not considered in computing averages.

Proficiency examinations are given under the following restrictions:

1. They may be taken only by persons who are in residence or, after having been in residence, are registered in a correspondence course; or who are candidates for degrees and need no more than ten semester hours credit to complete the requirements for their degrees;
2. They may not be taken by students who have received credit for more than one semester of work in the subject in advance of the course in which the examination is requested;
3. They may not be taken to raise grades or remove failures in courses.

Another class.

College of Commerce and Business Administration

Through training in modern business practices and in the fundamentals of economics, the College of Commerce and Business Administration seeks to develop in its students the abilities necessary for responsible positions in business and government. It offers a unified program of basic studies for freshmen and sophomores and a variety of fields of concentration for juniors and seniors. It is primarily this unified program for freshmen and sophomores which is offered at the Chicago Undergraduate Division. Though the factual contents of many of the courses are directly useful in specific vocations such as accounting, banking, selling, and teaching, students should expect to serve an apprenticeship in the fields they enter after graduation from this college, if they wish to prepare themselves for higher positions. While concentrating in a special field, they are required to elect courses offered in other colleges and schools of the University and to secure as liberal an education as possible to avoid the narrowing effects of overspecialization.

The program for the first and second years is organized around a nucleus of courses in accountancy and economics, mathematics and science, language and literature, and rhetoric and speech. While this program is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies for those who are in college only two years in preparation for work in the business world. Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the College of Education or to the College of Journalism and Communications, as well as to advanced work in the College of Commerce and Business Administration. Students transferring to other colleges after completing the two-year program do not receive their degrees from the College of Commerce and Business Administration but from the college to which they transfer.

In his last two years, in addition to completing the college general education requirements and the college general business education requirements, the student must complete one of the seventeen fields of concentration listed on page 82. These fields overlap to some extent in that they deal with the common problems of business and

public affairs. A student electing any one field of concentration ordinarily takes a substantial number of courses in other fields. The program leads to the degree of Bachelor of Science in the chosen field. For degrees from both the College of Commerce and Business Administration and the College of Law, see page 79.

New freshmen and transfer students have special advisors during the registration period to help them plan their programs.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must:

1. Fulfill general University requirements as to registration, residence, scholarship, and fees.

2. Have a total of 126 credit hours excluding Physical Education and Military, of which not less than sixty credit hours must be in Accountancy, Business Law, Economics, Finance, Management, and Marketing. Business Education courses may be included in the fields of Commercial Teaching and Secretarial Training. In Commercial Teaching and Commerce and Law only forty-five such hours are required, while in Industrial Administration and in Personnel Management the number of such hours is fifty.

3. Complete courses included in University requirements, College General Education requirements, and College General Business requirements. (See pages 78 and 79.)

4. Complete the requirements for one of the fields of concentration. (See page 79.)

5. Have a minimum average of 3.0 for all courses counted toward graduation, a 3.0 average for those courses taken at this university, and a 3.0 average in 200 and 300 level courses in the field of concentration. Physical Education and Military are not counted in the graduation average.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully.

These electives should be directed toward requirements in the Upper Division. They include business law, management, marketing, anthropology, history, philosophy, political science, psychology, and sociology, as well as additional courses in geography, mathematics, science, literature, foreign language, art, architecture, or music. Any advice desired on these electives may be obtained at the office of the dean or from the advisor at the time of registration.

Special Requirements

COLLEGE ALGEBRA: All students entering the College of Commerce and Business Administration without credit in college algebra must take a Mathematics Placement Test to determine whether they should take Mathematics 103, Mathematics 112, or no college algebra. No credit for Mathematics 103 is allowed toward graduation.

BUSINESS LAW: Students planning to major in accountancy or management must take Business Law 201 and 202 rather than Business Law 100; however, a student may take Business Law 100 followed by Business Law 202 with reduced credit.

LITERATURE OR LANGUAGE: Students must obtain credit in six hours of English and/or American literature or a reading knowledge of a modern foreign language equivalent to that resulting from four semesters of study in college. If a student has completed four years of one modern foreign language in high school, he has fulfilled the literature or language requiremnt of this college. Literature may be taken in the sophomore year. Students must select courses that require sophomore standing or above.

SCIENCE OR ADVANCED MATHEMATICS: Courses to fulfill this four-hour requirement may be taken from the following: biology, chemistry, geology, physics, physical science, and mathematics. Mathematics 101, 102, 103, 112, and 161 are not accepted as advanced mathematics.

Commerce and Law

Students interested in obtaining a legal education may take their prelegal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business, corporation, or income tax law. The general requirements are

the same as those for all Commerce students shown on page 80. The third year includes requirements of special value to the prelaw student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 96 hours, excluding Physical Education and Military, in the College of Commerce and Business Administration and thirty hours in the College of Law, including all required courses and all other graduation requirements, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. The approved program for this field for the first two years is shown on page 83.

Prejournalism

Students desiring to enter the College of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The general program for this purpose is the same as that shown on page 81.

GENERAL REQUIREMENTS

Normally students must register for not less than fourteen nor more than eighteen credit hours in each semester. Students must take required courses in Groups I, II, and III in the semesters indicated for each course (see page 81). A required course which is failed must be retaken the following semester.

The following graduation requirements are for students entering the College of Commerce and Business Administration after June 1, 1958. For graduation requirements prior to June 1, 1958, refer to the appropriate bulletin.

The requirements for graduation, as stated in Groups I, II, and III (page 81), apply to all fields of concentration except commercial teaching. For a complete statement on commercial teaching, see page 82.

Sample Program for All Commerce Students (Excepting Commercial Teaching)

FIRST YEAR — FIRST SEMESTER — 17 HOURS	
Accy. 101	3
Rhet. 101	3
Econ. 100	3
Math. 103	3
Science or Advanced Mathematics	4
Physical Education	1

SECOND SEMESTER — 16 HOURS	
Accy. 105	3
Rhet. 102	3
Econ. 136 or 138	3
College Algebra	3
Speech 101	3
Physical Education	1

SECOND YEAR — 16 or 17 HOURS	
Accy. 106 or 108 (106 recommended)	3
Econ. 102	3
Rhet. 151	3
Literature or Language	3 or 4
Electives from Group II	3
Physical Education	1

16 or 17 HOURS	
Econ. 103	3
Econ. 170	3
Literature or Language	3 or 4
Choice from Group II or III	6
Physical Education	1

Requirements for all Commerce Students

(Except Commercial Teaching. See page 70)

	CREDIT HOURS	NORMAL SEMESTER
I. University Requirements.		
Military[1]	4	1, 2, 3, 4
Physical Education	4	1, 2, 3, 4
Rhetoric 101, 102	6	1, 2,
Total	14	
II. College General Education Requirements.		
Economics 100—Introduction to Business (recommended)	(3)[2]	1
Economics 136—Economic History of the United States or Economics 138—Introduction to the Economic History of Modern Europe, or Geography 105—Introductory Economic Geography		
Literature or Language[3]	3	2
Mathematics 103—Introduction to College Algebra and Mathematics 112—College Algebra[4]	6 to 16	3, 4
Rhetoric 151—Business Letter Writing	0 to 3	1, 2
Science or Advanced Mathematics[5]	3	3 or 4
Social Science (Anthropology, History, Philosophy, Political Science, Psychology, or Sociology) a minimum of six hours; a minimum of three hours in 200 or 300 level courses in economics	4	1
Speech 101—Principles of Effective Speaking	9 to 12 3	3 or 4 1, 2, 3 or 4
Additional hours in Language, Literature, Advanced Mathematics, Science, Social Science, Art, Architecture, Music, Humanities, and Geography to bring the total of this group, excluding Economics 100, to 38 credit hours	0 to 13	2, 3, 4
Total	38	

[1]Not required if first sixty credit hours are taken at the Chicago Undergraduate Division.

[2]For freshmen only. Students with thirty credit hours or more should not take this course.

[3]If literature is elected, six hours of American or English literature requiring sophomore standing will satisfy the minimum requirement. If language is elected, it must be a modern foreign language and the equivalent of four semesters when pursued in college must be taken to satisfy requirements. (See page 79.)

[4]The placement examination will determine the mathematics course the student will take. Each student must have Mathematics 112 to complete this requirement, unless the placement test indicates that he already has knowledge equivalent to this. The only students exempted from the placement test are those who have college credit in college algebra. (See page 79.)

[5]If science is elected it may be any laboratory science (geography is not included here). If mathematics is elected it may be any course in advance of college algebra, trigonometry included. (See page 79.)

III. College General Business Education Requirements.

Accountancy 101—Principles of Accounting	3	1
Accountancy 105—Accounting Procedure	3	2
Accountancy 106—Elementary Cost Accounting (recommended), or Accountancy 108—Intermediate Accounting	3	3
Business Law 100—Basic Principles of Business Law (See page 106)	3	4
Economics 102, 103—Principles of Economics	6	3, 4
Economics 170—Elements of Statistics	3	4
Finance 250—Money, Credit, and Banking	3	
Finance 254—Business Finance	3	
Management 101—Industrial Organization and Management	3	4
Marketing 101—Principles of Marketing	3	4
Total	33	

IV. Field of Concentration Requirements and Free Electives.

Sufficient credit hours must be taken here to make a grand total of 126 credit hours, excluding Physical Education and Military Science. None of the required courses in the fields of concentration are available at the Chicago Undergraduate Division.

Fields of Concentration:

Accountancy
Commerce and Law
Commercial Teaching (special program)
Economics of Government and Business, Public Utilities, and Transportation
Economic History
Economic Theory
Finance
General Economics
Industrial Administration
Insurance
Labor Economics
Management
Marketing (ten sub-fields)
Personnel Management
Secretarial Training
Statistical Economics
Urban Land Economics

Questions should be directed to the Associate Dean of the College of Commerce and Business Administration, Room 27.

Curriculum Preparatory to Teaching Commercial Subjects

For the degree of Bachelor of Science in Commercial Teaching. A mimimum of 126 hours of credit, in addition to military and physical education, is required for graduation.

For a major, a minimum of forty-five credit hours in courses in accountancy, business education, business law, economics, finance, management, and marketing is required for graduation in this field of concentration. However, thirty-two of these hours must be exclusive of economics.

For a minor, the student must have, in addition, an approved teaching minor outside the commerce field.

Continuation in this curriculum requires admission of the student to advanced standing in teacher education. Admission to advanced standing is determined on the basis of the applicant's academic and personal qualifications for teaching. The completion of certain standardized tests is required. The record of an applicant whose academic average is below 3.5 is subject to special study.

FIRST YEAR FIRST SEMESTER 17 HOURS

Accy. 101—Principles of Accounting 3
Science or Advanced Mathematics.....4
Econ. 136—American Economic History, or
Econ. 138—European Economic History 3
Math. 112—College Algebra[1] 3
Rhet. 101—Rhetoric and Composition 3
Physical Education 1

SECOND YEAR FIRST SEMESTER 17 HOURS

Accy. 108—Intermediate Accounting.....3
Econ. 102—Principles of Economics 3
Geog. 105—Introduction to
Economic Geography 3
Rhet. 151—Business Letter Writing 3
Psych. 100—Introduction to Psychology.....4
Physical Education 1

SECOND SEMESTER 16 HOURS

Accy. 105—Accounting Procedure 3
Science or Advanced Mathematics.....4
Ed. 101—The Nature of the
Teaching Profession 2
Econ. 136—American Economic History, or
Econ. 138—European Economic History.....3
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND SEMESTER[2] 17 HOURS

Econ. 103—Principles of Economics 3
Hist. 152—History of the United States 3
Mktg. 101—Principles of Marketing 3
Ed. 201—Foundations of American Education..2
Sociol. 100—Principles of Sociology 3
Physical Education 1

[1]May require adjustment. See note 4 above.
[2]If there is room for electives, they could include Business Law 100, Political Science 150 as specific requirements; Accountancy 108, American or English Literature, or Philosophy 105 as option electives; Management 101 as a free elective. Whichever ones are chosen would affect the junior or senior program in that respect.

Time out!

College of Engineering

To prepare men for professional work in engineering and architecture and for responsible positions of a technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and engineering sciences and their applications to the design, construction, and operation of industrial plants, buildings and homes, and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems similar to those of practicing architects and engineers. The curricula in architecture in the College of Engineering are offered under the Department of Architecture and Art. A discussion of the curricula in architecture is presented following the curricula in engineering.

In addition to the fundamental and technological courses in each curriculum, cultural courses are required, such as history, economics, and rhetoric. Other courses are elective and are presented to provide the student with an awareness of the urgent problems of society and to develop a deeper appreciation of the cultural achievements of man. These socio-humanistic courses, recognized as fundamental background for the achievement of a full life are drawn from liberal arts, sciences, economics, sociology, fine and applied arts, and other sources.

At the Chicago Undergraduate Division the first two years are offered in the fields of aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, industrial engineering, mechanical engineering, metallurgical engineering, mining engineering, theoretical and applied mechanics, and the combined liberal arts-engineering curriculum. Those few required courses which are not available here are noted.

Instruction is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois to complete the courses leading to the degree.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees,

and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing

Future engineers.

a fifth year of work consisting of thirty to thirty-six semester hours, acceptable to the faculty of this college, providing plans have been made toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Electives and Options

Each engineering curriculum offers some elective opportunities which may be specified as technical, nontechnical, or social science or humanities. All technical elective courses must be chosen from departmental approved lists. Nontechnical, social science, or humanities electives may be chosen from the lists below; however, the student should make sure that he is fulfilling minimum requirements in each area as outlined in his curriculum.

An option is a group of related courses in a special field of subject matter.

Technical Electives

Chemical Engineering, Chemistry, and Mathematics—all courses.
Geology—all courses except Geology 102.

Nontechnical Electives

Commerce and Business Administration—all courses.
Geology 102
Hygiene—all courses
Liberal Arts and Sciences—all courses except those in astronomy, chemical engineering, chemistry, geology, and mathematics noted under technical electives.
Social Science and Humanities—all courses listed below

Social Science and Humanities Electives

Anthropology—all courses
Architecture 113, 214
Art 111, 112, 115
Economics—all courses except Economics 170
Foreign languages—any courses with a maximum of six hours credit toward humanities electives. Foreign students receive no credit for their native languages. The remaining two hours may be used as nontechnical electives.
General Engineering 220
Geography 104, 105, 123
History—all courses
Humanities—all courses
Literature—all courses in modern or classical literature
Music 130, 131
Philosophy—all courses
Political Science—all courses
Psychology—all courses except Psychology 135
Social Science 111, 113, 116
Sociology—all courses

Common Program for Freshmen

The entrance requirements to the College of Engineering in mathematics are three and one-half units: algebra, two units; plane geometry, one unit; and trigonometry, one-half unit. It is recommended that

students also take solid geometry in high school. Students continue to be admitted on the basis of a minimum of one unit each in algebra and plane geometry, but they are required to make up the deficiencies during their first year in college. This delays their graduation one semester unless steps are taken early to offset the deficiencies. It is recommended that such students attend a summer session preceding entrance into college or immediately following their first year, thus eliminating the extra semester at the end. A mathematics placement examination is given to all students presenting three and one-half or four units of high school mathematics. A passing grade on this examination is required for a student to enroll in analytic geometry the first semester. Students having college credit for algebra and trigonometry are not required to take this examination.

Freshman students who have had a year of chemistry in high school, who make a high score on the chemistry placement test, and who qualify for at least Mathematics 112 on the mathematics placement test may omit Chemistry 102 and 104. These courses are replaced by Chemistry 109, a five-hour course, and two additional hours of electives.

Transfer students should follow the curriculum listed in the Undergraduate Study bulletin for the year in which they entered the University of Illinois.

Common Program for Freshmen, All Engineering Curricula

FIRST YEAR FIRST SEMESTER 15 OR 16 HOURS		SECOND SEMESTER 18 HOURS	
Chem. 102 or 103[1]—General Chemistry	3 or 4	Chem. 104—Chemistry of Metallic Elements[1]	4
G.E. 101—Engineering Graphical Communication	3	G.E. 102—Engineering Geometry[3]	3
Math. 123—Analytic Geometry[2]	5	Math. 133—Calculus	3
Rhet. 101—Rhetoric and Composition	3	Physics 106—Mechanics	4
Physical Education	1	Rhet. 102—Rhetoric and Composition	3
		Physical Education	1

Curriculum in Aeronautical and Astronautical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 16 HOURS	
Math. 143—Calculus	5	Math. 343—Advanced Calculus	3
M. E. 182—Manufacturing Processes	3	Physics 108—Sound, Light, and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Modern History or Political Science	4	Math. 195—Introduction to Digital Computers	3
Physical Education	1	Physical Education	1

[1]Students may use only three hours of Chemistry 103 towards degree in engineering. See note in paragraph on Common Program for Freshmen about substitution of Chem. 109 for Chem. 102 or 104.
[2]Math. 112 and 114 for those entering with two or three units of high school mathematics. This also applies to those who do not pass the mathematics placement examination.
[3]Not required of Aeronautical and Astronautical Engineering and Electrical Engineering students entering on or after September 1, 1962.

Curriculum in Ceramic Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS
Cer. E. 101—Introduction to Ceramic Engineering[1]	3
Chem. 124—Quantitative Analysis	5
Math. 143—Calculus	5
Physics 107—Heat, Electricity and Magnetism	4
Physical Education	1

SECOND SEMESTER	18 HOURS
Cer. E.—102 Ceramic Processes and Equipment[1]	3
Geol. 130—Mineralogy for Engineers[1]	3
Physics 108—Sound, Light and Modern Physics	4
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Econ. 108—Elements of Economics	3
Physical Education	1

[1]Not offered at Chicago Undergraduate Division.

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. See page 98.

Curriculum in Civil Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 OR 19 HOURS
C. E. 101—Elementary Surveying	3
Math. 143—Calculus	5
Physics 107—Heat, Magnetism, Electricity	4
T.A.M. 150 or 151—Analytical Mechanics (Statics)	2 or 3
Social Science or Humanities Elective	3
Physical Education	1

SUMMER

C.E. 207—Summer Surveying Camp	5

SECOND YEAR SECOND SEMESTER	17 HOURS
Geol. 150—Geology for Engineers	3
Physics 108—Sound, Light, Modern Physics	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 221—Elementary Mechanics of Deformable Bodies	3
Econ. 108—Elements of Economics	3
C.E. 195—Introduction to Civil Engineering	0
Physical Education	1

Curriculum in Electrical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	17 HOURS
Math. 143—Calculus	5
Physics 107—Heat, Electricity and Magnetism	4
Econ. 108—Elements of Economics	3
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Physical Education	1

SECOND SEMESTER	18 HOURS
Math. 195—Introduction to Digital Computers	3
Math. 345—Differential Equations and Orthogonal Functions	3
E.E. 126—Electric Circuits and Fields[1]	4
Physics 108—Sound, Light and Modern Physics	4
Physical Education	1
Social Sciences or Humanities or Technical Elective	3

[1]Freshman entering on or after September 1, 1961 will take E. E. 250 and E. E. 251.

Curriculum in Engineering Mechanics

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	16 HOURS
Math. 143—Calculus	5
Physics 107—Heat, Electricity, Magnetism	4
T.A.M. 151—Statics	3
Nontechnical Elective	3
Physical Education	1

SECOND SEMESTER	17 HOURS
Math. 341—Differential Equations	3
Physics 108—Sound, Light and Modern Physics	4
T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 221—Elementary Mechanics of Deformable Bodies	3
Nontechnical Elective	3
Physical Education	1

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for research in engineering problems or for graduate work in Physics. It may also be used to prepare for positions in certain industries not requiring a graduate degree.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

FIRST YEAR

Common Program for Freshmen.

(Substitution of Chem. 106 for Chem. 104 is advised).

SECOND YEAR FIRST SEMESTER 17 HOURS		SECOND SEMESTER 16 HOURS	
German or Nontechnical Electives[1]	4	German or Nontechnical Electives[1]	4
Math. 143—Calculus	5	Math. 343—Advanced Calculus	3
Physics 107—Heat, Electricity and Magnetism	4	Physics 108—Sound, Light and Modern Physics	4
Social Sciences or Humanities[1]	3	Physics 341—Electricity and Magnetism	4
Physical Education	1	Physical Education	1

[1]Students should consult departmental list of approved courses.

Curriculum in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula with their emphasis on test procedures and design, but who wish to secure a sound education in engineering principles and their application. Two sequences of basic engineering design are available with secondary fields of concentration in business, sales, technical journalism, or geological engineering. Other areas of study may be selected with the approval of the department.

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 19 HOURS		SECOND SEMESTER 17 HOURS	
C.E. 101—Surveying or M.E. 182—Manufacturing Processes	3	G.E. 221—Introduction to Design	3
Econ. 108—Elements of Economics	3	Math. 345—Differential Equations and Orthogonal Functions	3
T.A.M. 150 or 151—Analytical Mechanics (Statics)	2 or 3	Physics 108—Sound, Light and Modern Physics	4
Math. 143—Calculus	5	Speech 101—Principles of Effective Speaking	3
Physics 107—Heat, Electricity and Magnetism	4	Elective	3
Physical Education	1	Physical Education	1

Curriculum in Industrial Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS	SECOND SEMESTER	17 HOURS
Econ. 108—Elements of Economics	3	Math. 263—Statistics for Engineers	3
Math. 143—Calculus	5	M.E. 184—Metal Processing or M.E. 183—Materials Casting	3
M.E. 183—Materials Casting, or M.E. 184—Metal, Processing	3	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity and Magnetism	4	Speech 101—Principles of Effective Speaking	3
T.A.M. 150—Analytical Mechanics (Statics)	2	T.A.M. 211—Analytical Mechanics (Dynamics)	3
Physical Education	1	Physical Education	1

Curriculum in Mechanical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS	SECOND SEMESTER	17 HOURS
Econ. 108—Elements of Economics	3	Math. 345—Differential Equations and Orthogonal Functions	3
Math. 143—Calculus	5	M. E. 184—Metal Processing, or M. E. 183—Materials Casting	3
M. E. 183—Materials Casting, or M. E. 184—Metal Processing	3	Physics 108—Sound, Light and Modern Physics	4
Physics 107—Heat, Electricity, Magnetism	4	T.A.M. 211—Analytical Mechanics (Dynamics)	3
T.A.M. 150—Analytical Mechanics (Statics)	2	Speech 101—Principles of Effective Speaking	3
Physical Education	1	Physical Education	1

Curriculum in Metallurgical Engineering

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER	18 HOURS	SECOND SEMESTER	18 HOURS
Chem. 124—Quantitative Analysis	5	Cer. E. 221—Pyrometry[1]	2
Math. 143—Calculus	5	Met. E. 201—Physical Metallurgy[1]	3
Physics 107—Heat, Electricity and Magnetism	4	Met. E. 203—Physical Metallurgy Laboratory[1]	1
Social Sciences or Humanities	3	Physics 108—Sound, Light and Modern Physics	4
Physical Education	1	T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
		Social Sciences or Humanities	3
		Physical Education	1

[1]Not offered at Chicago Undergraduate Division.

Combined Program in Engineering and Liberal Arts and Sciences

See the description of this program on page 101 of the catalog.

Architecture

Administered by the College of Engineering.

Architecture is a five-year course offered with two optional curricula. The general option offers advanced work in the design and planning of larger projects and the engineering option emphasizes structural design and theory. Both options lead to the degree of bachelor of architecture. The work in the first year is identical and the student makes his choice between the general option and the

engineering option at the beginning of the second year. The engineering option requires calculus and more advanced theoretical and applied mechanics.

The general option in architecture contains a well-balanced program of creative and technical training. Together with the necessary practical experience, it prepares the student for State Professional Registration. The engineering option, likewise, prepares the student for registration, but it offers advanced study in structure in place of architectural design in the last year and qualifies the student in the field of architectural engineering.

Both options include general studies in the humanities and the social and physical sciences necessary for the understanding and appreciation of better environment.

The department of architecture offers excellent facilities in lecture, drafting, and class rooms. There is a departmental library of nearly 10,000 volumes, over 10,000 slides, and innumerable magazines, pamphlets, and graphic materials.

Since the Undergraduate Division is located in Chicago, the department has numerous opportunities to present outstanding architects, professional lectures, and inspection trips to museums, galleries, and various types of buildings under construction.

In the curriculum in architecture normal course progress in sequence is imperative. Students failing to complete any required course more than one semester later than the time designated in the curriculum will be prohibited from progressive registration in architectural courses until the deficiency is corrected.

Regulations governing students who register in the University of Illinois in architecture:

1. Because of space limitations at Urbana, Architecture students who register at the Chicago Undergraduate Division may not transfer to the Urbana campus until they have completed that portion of the program offered at the Chicago Undergraduate Division.

2. Such students who register at Urbana but who later transfer to the Chicago Undergraduate Division must complete that portion of the program offered at the Chicago Undergraduate Division prior to readmission at Urbana. *Note:* This does not apply to students who transfer to the Chicago Undergraduate Division for the Summer Session.

Electives

Electives provided in the two architectural curricula may consist

of any courses given in the University not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131, 132; Geography 104, 105; Geology 101; Biology 101, 111; Speech 101, 141; Accountancy 101. Courses with prerequisite of sophomore standing which are acceptable as electives include Rhetoric 151; Economics 108; English 131; Political Science 150, 151.

Curriculum in Architecture (Five Years)

FIRST YEAR FIRST SEMESTER 15-17 HOURS
Art 181—Freehand Drawing 2
G. E. 107——Architectural Projections 2
Math. 111 or Math. 112—College Algebra .....5 or 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Elective 2
Physical Education 1

SECOND YEAR FIRST SEMESTER 16 HOURS
Arch. 131—Architectural Design 3
Arch. 141—Materials and Methods of Construction I 2
Art 183—Freehand Drawing 2
Physics 101—General Physics 5
Elective 3
Physical Education 1

THIRD YEAR FIRST SEMESTER 16 HOURS
Arch. 233—Architectural Design 3
Arch. 241—Materials and Methods of Construction III 2
Arch. 214—History of Medieval Architecture 3
Art 281—Freehand Drawing 2
Social. 276—Sociology of the City[1] 3
T.A.M. 172—Strength of Materials 3

SECOND SEMESTER 16 HOURS
Arch. 101—Introduction to Architecture 3
Art 182—Freehand Drawing 2
G. E. 108—Architectural Projections 2
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND SEMESTER 16 HOURS
Arch. 113—History of Ancient Architecture 2
Arch. 132—Architectural Design 3
Arch. 142—Materials and Methods of Construction II 2
Art 184—Freehand Drawing 2
T.A.M. 171—Elementary Mechanics 3
Soc. 100—Introduction to Soc. 3
Physical Education 1
[1]Soc. 100 is a prerequisite to this course.

Curriculum in Architectural Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 16-18 HOURS
Art 181—Freehand Drawing 2
G. E. 107—Architectural Projections 2
Math. 111 or Math 112—College Algebra .....5 or 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Elective 3
Physical Education 1

SECOND YEAR FIRST SEMESTER 16 HOURS
Arch. 131—Architectural Design 3
Arch. 141—Materials and Methods of Construction I 2
Art 183—Freehand Drawing 2
Math. 133—Calculus 3
Physics 101—General Physics 5
Physical Education 1

THIRD YEAR FIRST SEMESTER 16 HOURS
Arch. 233—Architectural Design 3
Arch. 241—Materials and Methods of Construction III 2
Arch. 214—History of Medieval Architecture 3
Art 281—Freehand Drawing 2
Social. 276 —Sociology of the City[1] 3
T.A.M 221—Resistance of Materials 3
T.A.M.—Laboratory 1

SECOND SEMESTER 16 HOURS
Arch. 101—Introduction to Architecture 3
Art 182—Freehand Drawing 2
G. E. 108—Architectural Projections 2
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education 1

SECOND SEMESTER 17 HOURS
Arch. 113—History of Ancient Architecture 2
Arch. 132—Architectural Design 3
Arch. 142—Materials and Methods of Construction II 2
Art 184—Freehand Drawing 2
Math. 143—Calculus 5
T.A.M. 150—Analytical Mechanics 2
Physical Education 1
[1] Soc. 100 is a prerequisite to this course.

Art

Administered by the College of Engineering.

The curricula in Art permit a student to attain a proficiency in art and to secure a liberal education. The first year is basic and cultural and at the beginning of the second year the student chooses his field of specialization in one of the following: Advertising Design, Industrial Design, Art Education, History of Art, Painting. These curricula all require 130 semester hours of credit in addition to physical education and military training for the degree of Bachelor of Fine Arts.

Common Program for Freshman, All Art Curricula

FIRST YEAR FIRST SEMESTER 15 to 16 HOURS	
Arch. 171—Drawing Theory	2
Art 117—Drawing	3
Art 119—Design	2
Rhet. 101—Rhetoric and Composition	3
Foreign Language or Elective[1]	3 or 4
Physical Education	1
Military (men)	1

SECOND SEMESTER 14 TO 16 HOURS	
Arch. 172—Drawing Theory	2
Art 118—Drawing	2
Art 120—Design	3
Rhet. 102—Rhetoric and Composition	3
Foreign Language or Elective[1]	3 or 4
Physical Education	1
Military (men)	1

[1]Electives must be chosen from the areas of humanities, social sciences, and natural sciences, and must include a minimum of three hours in each area.

Curriculum in Advertising Design

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 17 HOURS	
Art 111—Introduction to Ancient and Medieval Art	3
Art 127—Drawing, III[2]	3
Art 129—Anatomy, I[2]	2
Art 131—Elementary Composition	2
Art 141—Still Life	2
Physical Education	1
Military (men)	1
Electives	3

SECOND SEMESTER 17 HOURS	
Art 112—Introduction to Renaissance and Modern Art	3
Art 128—Drawing, IV[2]	3
Art 130—Anatomy, II[2]	2
Art 132—Elementary Composition	2
Art 142—Still Life	2
Physical Education	1
Military (men)	1
Electives	3

[2]Not offered at the Chicago Undergraduate Division.

Curriculum in Art Education

FIRST YEAR

Common Program for Freshmen.

SECOND YEAR 17 OR 18 HOURS	
Art 125—Life Drawing	2
Art 131—Elementary Composition	2
Ed. 101—The Nature of the Teaching Profession	2
Natural Science[1]	3
Physical Education	1
Military (men)	1
Electives	7

SECOND SEMESTER 17 OR 18 HOURS	
Art 126—Life Drawing	2
Art 132—Elementary Composition	2
Art 141—Still Life	2
Natural Science[1]	3
Psych. 100—Introduction to Psychology	4
Physical Education	1
Military (men)	1
Electives	3

[1]Botany, zoology, chemistry, physics, geology, geography, biology, general science, mathematics (excluding arithmetic), and physiology, or their equivalents in integrated courses.

Curriculum in Industrial Design

FIRST YEAR

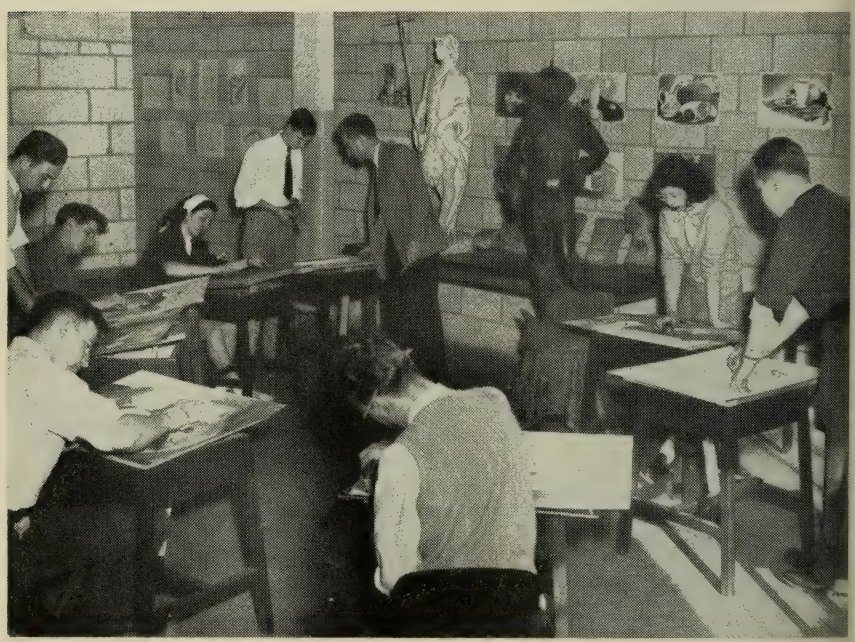
Common Program for Freshmen.

SECOND YEAR FIRST SEMESTER 16-18 HOURS

Art 111—Introduction to Ancient and Medieval Art 3
Art 133—Design Workshop 2
Art 151—Sculpture 2
Phys. Sci. 101—Physical Science 4
Math. 112—College Algebra, and Math. 114—Plane Trigonometry, or Art 125—Life Drawing, and Art 141—Still Life .....5 or 4
Physical Education 1
Military (men) 1

SECOND SEMESTER 16 or 17 HOURS

Art 112—Introduction to Renaissance and Modern Art 3
Art 134—Design Workshop 2
Art 152—Sculpture 2
Phys. Sci. 102—Physical Science 4
Math. 123—Analytic Geometry, or Art 126—Life Drawing, and Art 142—Still Life 4
Physical Education 1
Military (men) 1



Art class.

College of Liberal Arts and Sciences

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education, with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years and to change his vocational objective without additional time. Such a change after the beginning of the junior year usually can not be made without loss of time. It is assumed that except for pre-medical students, upon completion of the two years' work in the Chicago Undergraduate Division, students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice, so that they may plan their work most effectively within the framework of University of Illinois requirements while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, physics, premedicine (complete three-year program), predentistry, prenursing, teacher-education, prelaw, preveterinary medicine, prejournalism, combined liberal arts-engineering, and one year of occupational therapy, prepharmacy, forestry, and home economics. Content of the courses closely parallels that on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in the field of concentration before beginning the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of

courses to be taken by any student in each of the four years of this curriculum.

Under the guidance of an advisor, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 89, 90 and 91 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Physical Education—Four semesters.

Military Science—Four semesters, except that men transferring from the Chicago Undergraduate Division with sixty hours are exempt from this requirement.

Rhetoric—Rhetoric 101 and 102. (A student with "C" or "D" in Rhetoric 102 must pass a qualifying examination or take Rhetoric 200.)

Foreign Language—Equivalent of two college years in the same language.

Biological Sciences[1]—Eight hours.

Physical Sciences[1]—Eight hours.

Humanities[1]—Eight hours.

Social Sciences[1]—Eight hours.

Major—Twenty approved hours in one department.

Minor(s) — Twenty approved hours in one or two departments.

Advanced hours—Thirty hours of credit in courses not open to freshmen and sophomores.

Residence — Either first ninety hours uninterrupted, or last thirty hours uninterrupted at the University of Illinois in Urbana. For students at the Chicago Undergraduate Division, the junior or senior year (thirty semester hours) must be taken at Urbana.

Average—3.0 ("C") minimum average in all work and in all work at Illinois.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of "D".

[1]The eight hours must be taken in approved sequence, except that a major automatically satisfies one sequence.

REQUIRED SUBJECTS

1. Foreign Language. A reading knowledge of a foreign language equivalent to that resulting from four semesters of study of a foreign language commenced in college. Completion of four years of foreign language in high school also satisfies this requirement. Proficiency examinations are offered in those languages which are included in the

curriculum of the College of Liberal Arts and Sciences. Students transferring from other colleges may present in satisfaction of the language requirement two years of college credit in a language not offered at the University of Illinois. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

2. General Education. To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete at least three of these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each area, is required: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences. A major satisfies one sequence requirement.

ELECTIVES

1. Liberal Arts and Sciences. Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

2. Other Colleges. Electives totaling as much as but not more than thirty-two hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list:

Accountancy. A total of 6 hours (including not more than one of the following courses: Accountancy 101, 201).

Agricultural Economics. A total of 6 hours.

Architecture. A total of 15 hours.

Art. A total of 15 hours, unless the student is majoring in history of art.

Aviation. A total of 3 hours.

Business Law. A total of 6 hours.

City Planning and Landscape Architecture. A total of 7 hours.

Dance. A total of 6 hours from Dance 240, 246.

Economics. All courses.

Education. A total of 20 hours.

Engineering. A total of 10 hours. However, a student in the combined LAS-Engineering curriculum may count all engineering courses toward the two degrees.

Finance. All courses.

Food Technology. A total of 6 hours.

Forestry. A total of 3 hours.

Home Economics. All courses.

Horticulture. A total of 6 hours.

Hygiene. A total of 2 hours.

Journalism. A total of 10 hours.

Law. A student of senior standing with an average of 3.5 who has been in residence either the first two years or the last year of his prelegal work may take and count toward the A.B. degree not to exceed 32 hours in the University of Illinois College of Law. A student of senior standing with an average of 3.5 who has completed his first three years (not less than 88 semester hours excluding basic military and physical education) in residence at the University of Illinois (a student at the Chicago Undergraduate Division must complete his junior year with at least 30 semester hours at Urbana) and who transfers to an accredited college of law other than that of the University of Illinois may count 32 hours of law toward the A.B. degree. The applicant for the degree will petition the dean of the College of Liberal Arts and Sciences, who may approve the granting of the bachelor's degree if all the college and university requirements have been met, and the student is in good standing in the law school from which the credit is being transferred.

Library Science. A total of 20 hours.

Management and Marketing. A total of 6 hours. Typing, secretarial training, and shorthand may not be counted for credit.

Military. A total of 8 hours in advanced courses.

Music. A total of 15 hours approved by the director of the School, unless the student is majoring in music.

Physics. All courses.

SPECIAL CURRICULA

Chemistry and Chemical Engineering

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or Russian. When a student does not offer either German or Russian for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum, and should be taken in immediate sequence.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 123,

and who do not have two units of high school credit in Russian or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing in the curriculum.

Curriculum in Chemistry

FIRST YEAR FIRST SEMESTER 17 HOURS

Chem. 107—General Chemistry[1] 5
German or Russian[2] 4
Math. 112—College Algebra 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Physical Education

SECOND SEMESTER 17 HOURS

Chem. 108—General Chemistry and Qualitative Analysis 5
German or Russian[2] 4
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education

SECOND YEAR FIRST SEMESTER 16 HOURS

Chem. 124—Quantitative Analysis 5
Math. 133—Calculus 3
Physics 106—Mechanics 4
Electives[3] 3
Physical Education

SECOND SEMESTER 17 or 18 HOURS

Chem. 234—Organic Chemistry 5
Math. 143—Calculus 5
Physics 107—Heat, Electricity, Magnetism 4
Electives[3] .....2 or 3
Physical Education

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]German and Russian are the only acceptable languages in this curriculum. The equivalent of two years of one of these languages is required.

[3]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

Curriculum in Chemical Engineering (Four Years)

FIRST YEAR FIRST SEMESTER 16 HOURS

Chem. 107—General Chemistry[1] 5
G. E. 101—Elements of Drawing 3
Math. 123—Analytic Geometry[3] 5
Rhet. 101—Rhetoric and Composition 3
Physical Education

SECOND SEMESTER 15 to 18 HOURS

Chem. 108—General Chemistry and Qualitative Analysis 5
Math. 133—Calculus 3
Physics 106—Mechanics 4
Rhet. 102—Rhetoric and Composition 3
Electives[2] .....0 to 3
Physical Education

SECOND YEAR FIRST SEMESTER 18 HOURS

Chem. 124—Quantitative Analysis 5
German or Russian 4
Math. 143—Calculus 5
Physics 107—Heat, Electricity, Magnetism .. .4
Physical Education

SECOND SEMESTER 17 HOURS

Chem. 342—Elementary Physical Chemistry 3
Chem. 343—Physical Chemistry Laboratory ...1
German or Russian 4
Physics 108—Sound, Light and Modern Physics 4
T.A.M. 150—Analytical Mechanics (Statics) ..2
Electives[5] 3
Physical Education

Optional Curriculum in Chemical Engineering (Five Years)

FIRST YEAR FIRST SEMESTER 15 to 17 HOURS

Chem. 101 or 102—General Chemistry[6] ..5 or 3
German or Russian 4
Math. 112—College Algebra 3
Math. 114—Trigonometry 2
Rhet. 101—Rhetoric and Composition 3
Physical Education

SECOND SEMESTER 17 HOURS

Chem. 106—Inorganic Chemistry 5
German or Russian 4
Math. 123—Analytic Geometry 5
Rhet. 102—Rhetoric and Composition 3
Physical Education

SECOND YEAR FIRST SEMESTER	17 HOURS	SECOND SEMESTER	18 HOURS
Chem. 110—Qualitative Analysis	5	Chem. 124—Quantitative Analysis	5
German or Russian	4	German or Russian	4
Math. 133—Calculus	3	Physics 107—Heat, Electricity, Magnetism	4
Physics 106—Mechanics	4	Math. 143—Calculus	5
Physical Education		Physical Education	

[1]All students with entrance credit in chemistry are required to take a placement examination before registering for Chemistry 107. Those who do not show the necessary proficiency will be placed in Chemistry 101 or 102, after which they will take Chemistry 106 and 110. For students without entrance credit in chemistry, the required sequence is Chemistry 101, 106, and 110.

[2]Suggested courses for electives are Biology 101, 111, 121, 131, 132; English 121, 122, 123; Geology 130, 150; History 151, 152; German or French. Of the total electives for graduation, at least twelve hours should be from advanced courses in chemistry and at least ten hours from courses offered by other departments.

[3]Students without the required entrance credits in mathematics take Mathematics 112 (or 103), 114, 123, 133, and 143.

[4]Two years of German and/or Russian are required for the B.S. degree. Two units of high school credit in either of these languages is equivalent to one year of college credit. Students entering without German or Russian in high school may substitute the second year of the language requirement for the eight hours of electives referred to in footnote 5.

[5]Eight hours of electives must be chosen from the Divisions of Humanities or Social Sciences with the approval of the advisor. The courses are intended to broaden the engineer and provide an interest and liberal education in history, language, literature, philosophy, political science, or public speaking.

[6]Students who qualify for Chemistry 107 should take the Chemistry 107, 108, 124, 342 sequence rather than Chemistry 101, 106, 110, 124 and thus have five additional hours of advanced electives.

Chemistry lab.

Combined Program in Engineering and Liberal Arts and Sciences

The Colleges of Engineering and Liberal Arts and Sciences offer a combined program of five years leading to a baccalaureate degree from each college. This curriculum requires 166 hours for graduation, exclusive of physical education and military science. It is possible to combine any of certain engineering curricula—aeronautical, agricultural, civil, electrical, engineering mechanics, physics, industrial, mechanical—with any one of certain majors in Liberal Arts and Sciences—anthropology, classics, English, French, history, Latin, mathematics, philosophy, physics, political science, psychology, Russian, sociology, Spanish, speech. Other combinations will require more than ten semesters.

The first year is the program common to freshmen in Engineering and may be taken in either college. The second and third years are taken in Liberal Arts and Sciences, and the last two years are taken in Engineering. All graduation requirements of both colleges must be met.

Students entering this curriculum must meet the admission requirements of both colleges. A student dropping out of the program will be subject to the existing graduation requirements of the college of his choice. A student in the curriculum is governed by the probation and drop rules of the college in which he is registered. A student who completes the foreign language requirement in Liberal Arts and Sciences in less than four semesters must replace the hours thus released by work in social sciences or humanities.

Students transferring from the Chicago Undergraduate Division must plan to complete at least one year in the College of Liberal Arts and Sciences and two years in the College of Engineering at Urbana.

Graduation will be from both colleges simultaneously on completion of the entire program.

Transfer students who have more than 75 hours are ineligible for this program. Applications from transfer students for the combined program must be made at least six weeks in advance of the opening of the term.

Forestry Curriculum

Students may take the first year of the four-year forestry curriculum, administered by the College of Agriculture at Urbana, at the Chicago Undergraduate Division. Courses for the freshman program in forestry should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Home Economics Curriculum

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Predental Curriculum

Students applying for admission to the predental curriculum must have ranked in the upper half of their high school graduating classes. They must maintain at all times in the curriculum a minimum average of 3.5. Since the function of the predental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours include social sciences, humanities, and at least one modern language.

The specific requirements for admission to the College of Dentistry are as follows:

	SEMESTER HOURS
Chemistry (including three hours of quantitative analysis and four hours of organic chemistry—Chemistry 101 or 102, 105, 122, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology[1])	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives (Social Sciences, Humanities, and at least one modern langugae; excluding military, hygiene, and physical education)	30
Total	60

[1]The general zoology requirement may be met by Biol. 101 and 131 or Biol. 101 with a grade of "B."

Prejournalism Curriculum

Students planning to enter the College of Journalism and Communications register as prejournalism freshmen and sophomores, following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering the junior year.

For admission to the College of Journalism and Communications as a candidate for a degree, a student must have completed fifty-six semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military training, with an average grade of 3.5. An applicant for admission will find it to his advantage to include in his prejournalism curriculum courses in economics, English, history, foreign languages, political science, psychology, and sociology.

The College of Journalism and Communications offers the following curricula: editorial, advertising, publication, management, and radio-television.

Prelaw Curriculum

The prelegal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Service at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both Liberal Arts and Law comply with the graduation requirements in the general curriculum, and must transfer to Urbana for the junior year. Such students are urged to complete all of these requirements except the minor and advanced hours before entering the College of Law. The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric; speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; psychology; sociology; mathematics; and accountancy.

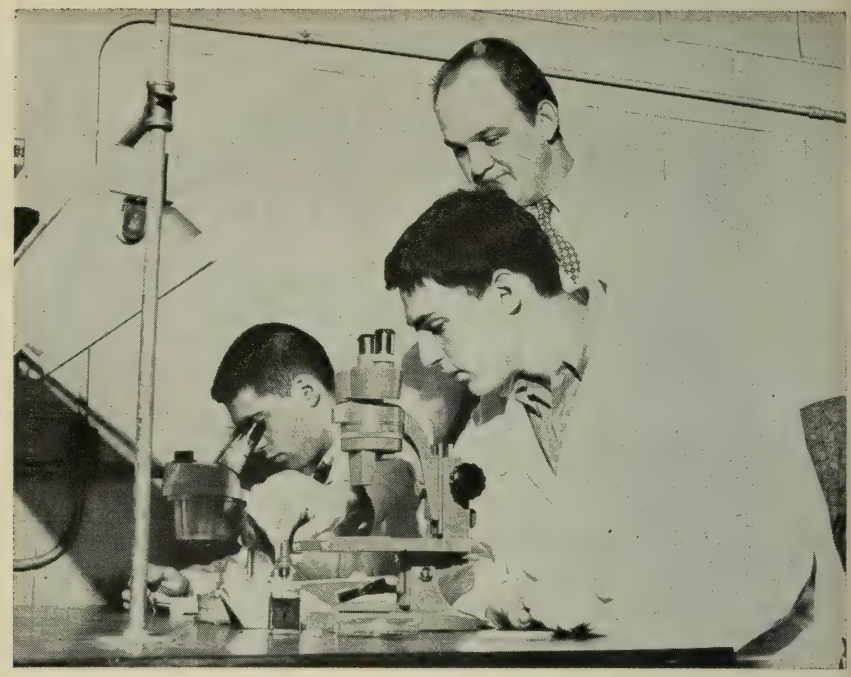
Premedical Curriculum

Any freshman whose scholastic rank is in the upper half of his high school graduating class is eligible for admission to the premedical curriculum. Premedical students must maintain a 3.5 average to remain in the curriculum. A student transferring to this college with advanced standing must meet this standard in terms of the University's grading system in order to be admitted to the premedical curriculum.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	SEMESTER HOURS
Non-Science Courses (32 semester hours required)	
English	6
Foreign Language	6*
Social Science and Humanities (at least three hours from each area)	16
Electives	4
Laboratory Sciences (32 semester hours required)	
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and embryology)	10
Chemistry (including in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	14
Physics (including nuclear physics and laboratory work in mechanics, heat, sound, light, and electricity)	8
Upper division courses in one area	6
Free Electives	24
Physical Education, 4 semesters	
Total	94

*Waived for students with four units of high school language in *one* language; must be replaced by Social Science and/or Humanities.



Comparative Anatomy.

Prepharmacy Curriculum

Admission to the College of Pharmacy of the University of Illinois requires favorable action by the Admissions Committee of that college. To be eligible for consideration by the Committee a student must: (1) present six hours of rhetoric, one year of general chemistry, five hours of college algebra and trigonometry; (2) have a total of thirty hours of credit excluding hygiene, military science, and physical education; (3) have a grade point average of at least 3.0.

The specific requirements can be met at the Chicago Undergraduate Division through Rhetoric 101, 102; Chemistry 102 (101), 105; Mathematics 112, 114. These courses total 19-21 hours. The additional work will be taken in foreign language, as required in Liberal Arts and Sciences, social sciences, and/or humanities. Students deficient in preparation for Mathematics 112 will start with Mathematics 103.

Students who transfer into this curriculum at the end of their first semester may find it necessary to complete the requirements in the Summer Session.

Curricula in Nursing

The University offers two degree programs leading to a Bachelor

of Science in Nursing. One is for students direct from high school, the second is a continuation program for registered nurses who meet a specific set of requirements. Each program is made up of two phases—a preprofessional year in the College of Liberal Arts and Sciences, and the professional phase administered by the College of Nursing.

Admission to the preprofessional year in both programs is restricted to students from the upper half of the high school class who are eligible to enter the College of Liberal Arts and Sciences. Transfer students must have a 3.0 scholastic average.

Admission to the professional phase is on recommendation of the Admissions Committee of the College of Nursing after completion of the following preprofessional year:

Rhetoric 101, 102	6
Chemistry 102 (or 101), 132	6-8
Biology 101	4
Humanities	6-8
Social Sciences	6-8
Electives	
Physical Education	
Totals	30

Specific questions on both programs should be addressed to the Dean of the College of Nursing, 1853 W. Polk Street, Chicago 12, Illinois.

Occupational Therapy

The University offers a baccalaureate degree program in occupational therapy, open both to men and women, and requiring six semesters of work in the College of Liberal Arts and Sciences and five quarters in the College of Medicine. The first year may be taken at the Chicago Undergraduate Division.

Admission to the curriculum is restricted to students from the upper half of the high school graduating class, who are in good health as determined by a physical examination, and who are approved by the Director of the curriculum. A 3.5 average is required for admission to the professional phase of the curriculum.

The work of the first year is as follows:

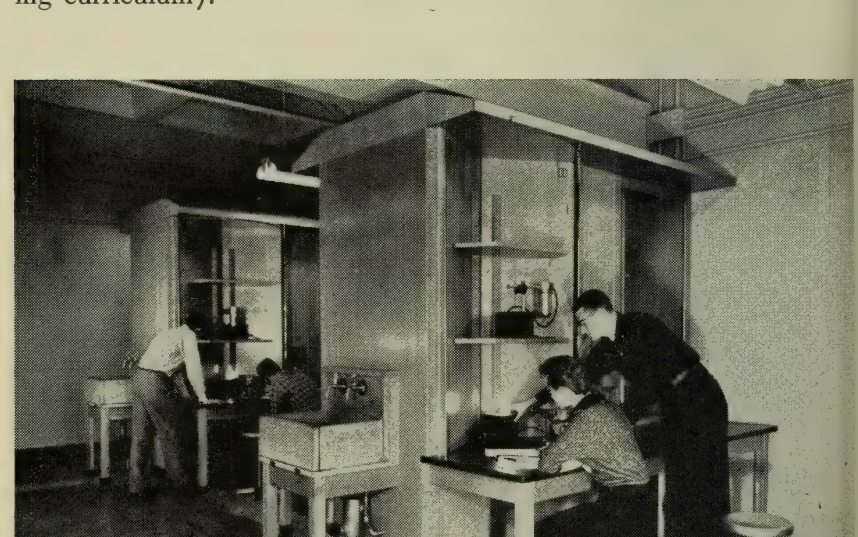
	SEMESTER HOURS
Rhetoric 101, 102	6
Biology 101, 141	8
Art 181, 182	4
Speech 101	3
Hygiene 104	2
Electives (foreign language, social science, humanities)	8-10
Physical Education	
Total	31-33

Curriculum in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to prepare to enter government or industrial laboratory research positions upon attaining

the B.S. degree. It specifies the courses essential to a strong foundation in physics and permits concentration in the first two years on basic courses which are prerequisite to advanced courses in physics and mathematics.

It is planned for a student entering with four years of high school mathematics, including trigonometry (see, however, footnote 1 following curriculum), a year of chemistry, and no French or German. A student who can satisfy the college language requirement on entering has the distinct advantage of adding 16 hours of electives to his course of study. A student who has a year of high school biology will also have more freedom in choice of electives (see footnote 4 following curriculum).



Physics Experiments.

To enter the physics curriculum, an entering freshman must rank in the upper half of his high school class. To be permitted to register in advanced physics or mathematics courses in this curriculum, students must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military science and physical education, and a combined grade average of at least 3.5 in all courses completed in physics and mathematics. Transfer students must have a corresponding record in the institution from which they transfer.

FIRST YEAR FIRST SEMESTER 16 HOURS

Math. 123—Analytic Geometry[1]	5
Chem. 103—General Chemistry[2]	4
German or French[3]	4
Rhet. 101—Rhetoric and Composition	3
Physical Education	

SECOND YEAR FIRST SEMESTER 17 HOURS

Math. 143—Calculus[1]	5
Physics 106—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

SECOND SEMESTER 16 OR 17 HOURS

Math. 133—Calculus[1]	3
Chem. 104—Chemistry of the Metallic Elements[2]	4
German or French[3]	4
Rhet. 102—Rhetoric and Composition	3
Elective	2 or 3
Physical Education	

SECOND SEMESTER 15 HOURS

Math. 345—Differential Equations and Orthogonal Functions	3
Physics 107—General Physics	4
German or French[3]	4
Elective[4]	4
Physical Education	

[1]The prerequisite to entering the stated sequence in mathematics is three to four years of high school mathematics, including trigonometry, and a satisfactory grade on the mathematics placement examination. Students having college credit for algebra and trigonometry are not required to take the examination. A student who does not meet the above prerequisite may meet the requirements in basic mathematics with the sequence Math. 112, 114, 123, 133, 143, but he will receive only 13 hours credit toward the degree.

[2]The chemistry requirement may be satisfied by a year of general chemistry selected from courses Chem. 101 through 108, or by the one-semester course, Chem. 109. A maximum of eight hours in general chemistry will be counted toward the degree, except that ten hours will be allowed for Chem. 107 and 108.

[3]The language requirement is a reading knowledge of German or French. A student planning to enter graduate study should attain a reading knowledge of both German and French.

[4]The elective subjects must include at least 24 hours of course work in humanities, social sciences, and biological sciences. The courses must satisfy the general education requirements of the college, except that students offering one unit or more of biology for admission may substitute additional courses in humanities and social sciences for biological sciences. Students will be advised to include six to eight hours of physics and three to six hours of mathematics among the remaining electives.

Teacher Education Curricula

Of the curricula in teacher education which have been approved by the College of Liberal Arts and Sciences, preliminary work in thirteen curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid, and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

While these curricula vary considerably from one another, the common core of the first two years is as follows:

	FIRST YEAR SEMESTER HOURS	SECOND YEAR HOURS
Physical Education	2	2
Rhetoric 101, 102	6	
Speech 101	3	
Foreign Language (until a 104 course is completed)	8	8
Science	6-8	
English or Social Studies as required		6-8
Specific requirements. Education 101, History 151 or 152, Political Science 150, Psychology 100		13
Work in major teaching field and electives	3-7	4-6
Total	30-32	32-34

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this college.

The work of the first two years in this curriculum has the following pattern:

	FIRST YEAR	SECOND YEAR
	SEMESTER HOURS	
Physical Education	2	2
Rhetoric 101, 102	6	
Speech	2-3	
Language arts	6-8	
Science, biological and physical	8	8
Social Studies	8	
Specific requirements, Education 101, Geography 104, History 151 or 152, Political Science 150, Psychology 100		16
Electives		7-9
Total	32-34	32-34

Admission to the curricula preparatory to teaching deaf and hard-of-hearing children or mentally handicapped children requires the meeting of qualitative and physical requirements and a personal interview. The determination of courses will be made with a teacher education advisor.

Admission to Advanced Standing in Teacher Education

Continuation in teacher education programs requires admission of the student to advanced standing in teacher education. Application for admission to advanced standing must be made early in the first semes-

Future teachers.

ter of the sophomore year. A student who transfers to a teacher education curriculum with more than sophomore standing must apply for admission to advanced standing early in his first semester of attendance. Information about the procedure for applying for advanced standing is available from the Teacher Education Advisor, Room 36.

Admission to advanced standing is determined on the basis of the applicant's academic and personal qualifications for teaching. The completion of certain standardized tests is required. The record of an applicant whose academic average is below 3.5 is subject to special study.

Admission to advanced standing in teacher education is prerequisite to admission to education practice (student teaching). A student who is admitted to advanced standing in teacher education is admitted to the educational practice course unless there is subsequent deterioration in his record.

Preveterinary Curriculum

The two-year preveterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the preveterinary curriculum must rank in the upper half of their high school graduating classes. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

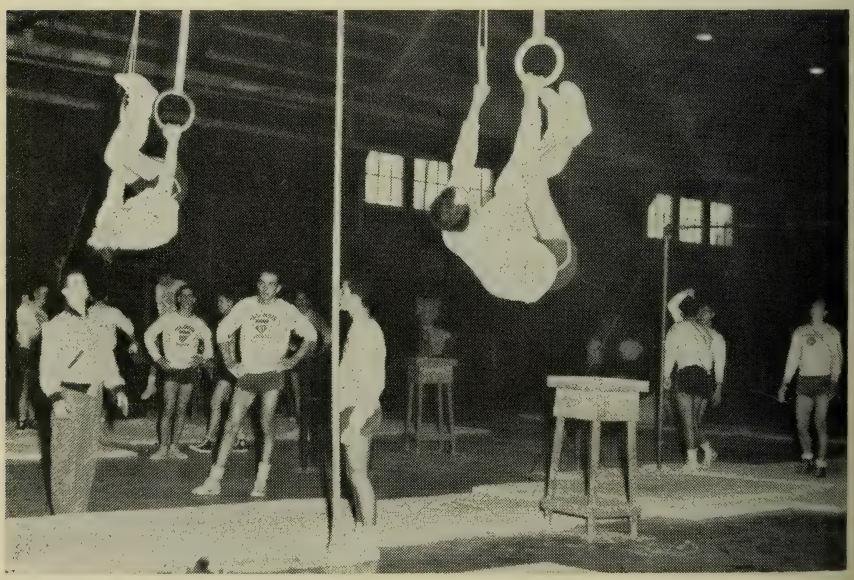
	SEMESTER HOURS
Chemistry (including organic and quantitative analysis—Chemistry 101 or 102, 105, 122, and 133)	16
Biological Sciences (including botany and general zoology)	8
Physics (including laboratory—Physics 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhetoric 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	9
Free electives	7
Total	60

The preveterinary curriculum is extremely rigid, and failure to register in the prescribed courses in the proper sequence may result in an additional semester of study.

College of Physical Education

All students entering the university as freshmen are required to obtain four semesters credit in physical education. Each student is given a health examination and a placement test before registration. The findings of the Health Service and the results of the placement test are used as a basis for prescribing each student's program. Students with handicapping defects are assigned prescribed activities. Students with low placement scores are assigned to basic physical fitness courses. Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for one and one-half hours. All non-professional courses in physical education carry one hour credit.

Men entering the University with less than sixty semester hours credit are required to secure four semesters credit in physical education, including the amount transferred. In addition to a basic physical fitness program, men are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts,



Physical Education class—apparatus.

boxing, wrestling, weight lifting, archery, boating and fishing, basketball, back yard sports, personal defense activities, individual athletics, and intercollegiate and intramural athletics.

Veterans who have fulfilled the physical education requirement while in the service are exempt from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce and Business Administration.

Women entering the University as freshmen are required to obtain four semesters credit in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of physical education. Women are offered instruction in elementary and intermediate rhythms, ballroom dance, speedball, modified activities, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extracurricular activities in sports and the dance.

PROFESSIONAL CURRICULA

In addition to the service program, the College of Physical Education offers the first two years of a four-year program leading to the degree of Bachelor of Science in Physical Education, for both men and women. Men desiring to major in Recreation or Health Education, and women desiring to major in Dance, may take at least one year of work at this Division. Complete information concerning the professional curricula is available at the office of the Associate Dean of the College of Physical Education (for men) and from the Head of the Department of Physical Education for Women.

Curriculum in Physical Education for Men

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 150—Professional Orientation	2	P.M.M. 155—Gymnastics	1
P.E.M. 151—Beginning Basketball	2	P.E.M. 156—Wrestling	1
P.E.M. 152—Beginning Football	2	P.E.M. 157—Track & Field	1
Speech 101—Prin. of Effect. Sp.	3	P.E.M. 158—Baseball	1
Rec. 174—Camp Counseling	3	Biol. 101—Fundamentals of Biol.	4
Hyg. 104—Science of Per. Health	2	Rhet. 102—Rhetoric & Comp.	3
Rhet. 101—Rhetoric & Composition	3	Hyg. 110—Public Health	2
	17	Humanities Elective	3
			16

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.M. 153 Fitness Programs	2	Rec. 170—Outdoor Rec. Spts.	2
P.E.M. 154—Swimming	2	Rec. 171—Indoor Rec. Spts.	2
Rec. 176—Principles of Rec.	3	Dance 235—Square & Ballrm.	2
Pol. Sci. 150—American Government	3	P.E.M. 209—History of Spt.	3
Psych. 100—Introduction to Psych.	4	History 152—American History	4
Education 201—Found. of Am. Ed.	2	Rhet. 151—Bus. Letter Writ.	3
	16	Electives	2
			18

Curriculum in Physical Education for Women

A minimum of 132 hours of credit, counting physical education, is required for graduation.

FIRST YEAR

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
P.E.W. 150—Professional Orientation	2	P.E.W. 152—Volleyball and Softball	1
P.E.W. 151—Body Mechanics and Gymnastics.	1	Dance 160—Beginning Contemporary Dance	1
P.E.W. 110—Swimming	1	Rhet. 102—Freshman Rhet. and Comp.	3
Rhet. 101—Freshman Rhet. and Comp.	3	Speech 101—Principles of Effective Speaking	3
Biol. 101—Fundamentals of Biology	4	Psych. 100—Introduction to Psychology	4
Hygiene 104—The Science of Personal Health.	2	Gr. Elective	3
Gr. Elective	3	P.E.W. Elective	1
P.E.W. Elective	1	Total	16
Total	17		

SECOND YEAR

FIRST SEMESTER		SECOND SEMESTER	
P.E.W. 153—Hockey, Soccer and Basketball	1	P.E.W. 154—Tumbling and Tennis	1
Dance 235—Square and Ballroom Dance	2	P.E.W. 166—Elementary School Games	2
H.E. 281—First Aid	2	P.E.W. 201—Badminton, Archery, Track and Field	1
Pol. Sci. 150—American Government	3	Ed. 109—Educational Psychology	3
Gr. Elective	2	Hist. 152—History of U. S. from 1865 to Present	4
Group Elective or Minor	6	Free Elective or Minor	5
P.E.W. Elective	1	P.E.W. Elective	1
Total	17		17

U. S. Army Reserve Officers' Training Corps

Authorization

The Reserve Officers' Training Corps (R.O.T.C.) is organized under authority of section 40 through 47c of the National Defense Act of 1916, as amended, and was activated at the University of Illinois, Chicago Undergraduate Division, in September 1950.

Educational Aim

The fundamental educational aim of the R.O.T.C. is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and to so prepare him that, in time of national emergency, he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspects of the military training program give the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should instill in the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The R.O.T.C. course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the R.O.T.C. are that the student be regularly enrolled in the University, be a citizen of the United States, be within specified age limits, be physically qualified, and be approved by the Professor of Military Science.

Note: Students who voluntarily enroll in R.O.T.C. thereby become obligated to fulfill the University degree requirement in Military Science; namely, successful completion of the basic course.

Program of Instruction

College level R.O.T.C. instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, which comprises the last two years of the program. Only the first two years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the basic course. Students in the basic course devote three hours a week to military instruction which consists of two hours of classroom instruction and one hour of drill. Credit for the basic course is one credit hour each semester. A student entering the University of Illinois after successfully completing military training at a high school or preparatory school which has an accredited Junior Division R.O.T.C. program will be entitled, upon enrollment, to such placement as

A good soldier is born in the classroom.

may be determined by the Professor of Military Science. In no case will this placement exceed the first year of the basic course. Any member of the U. S. Army Reserve who has completed a six-month tour of active duty for training is eligible to enroll in the basic course of R.O.T.C. Constructive credit not to exceed the first year of the basic course may be given to individuals in this category. These individuals also may substitute completion of a satisfactory year of R.O.T.C. training for a required satisfactory year of training in the Ready Reserve.

Advanced Course

The advanced course of the R.O.T.C. leads to a Reserve or Regular commission in the U. S. Army. Any student enrolling in the advanced course must be prepared to pursue the course to completion, and must be able to qualify for appointment as a second lieutenant prior to reaching twenty-eight years of age. The objective of the advanced course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular Army units.

All members of the advanced course will receive the following: monetary allowance in lieu of subsistence, officer-type uniform, the pay of the first enlisted grade while at the advanced summer encampment, and all necessary texts and materials on a loan basis.

Deferment from Selective Service

Deferment from Selective Service is granted until completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and civilian faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the R.O.T.C. receive an Army green uniform and textbooks, at government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of $10 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

Courses of Instruction

The following list of undergraduate courses is arranged in alphabetical order. The courses offered by each department are listed numerically in groups with headings to indicate the students for whom they are designed. Courses for undergraduates (freshmen and sophomores) are numbered 100 to 199; those for advanced undergraduates (junior and seniors), are numbered 200 to 399. *Most* courses are given each semester. See, however, semester timetable for precise offerings.

Students having ninety-five or more hours of credit, without regard to the college in which they may be enrolled, are classified as seniors for the purpose of designating those freshman courses which, when taken by seniors, carry reduced credit.

Following the title of each course is a description of its content, the credit given, and the requirements for admission to the course, if any.

ACCOUNTANCY

Accy. 101. Principles of Accounting. Credit 3 hours. Beginners' course. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students with 95 or more credit hours receive only 2 hours credit.

Accy. 105. Accounting Procedure. Credit 3 hours. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting, business forms and records; payroll accounting; single entry; financial statement analysis. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Accountancy 101.

Accy. 106. Elementary Cost Accounting. Credit 3 hours. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. Prerequisite: One year of accountancy; sophomore standing.

Accy. 108. Intermediate Accounting. Credit 3 hours. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization and of modern basic concepts of accounting theory; interpretation of financial statements and analysis of the principal accounts represented therein. Prerequisite: One year of accountancy; sophomore standing.

Accy. 274. Federal Income Tax Accounting. Credit 3 hours. Basic discussion of history, theory, and broad outlines of federal income taxation, together with the more important problems of a less advanced and difficult nature. Prerequisite: Accountancy 108.

Accy. 308. Advanced Accounting. Credit 3 hours. Reserves, sinking funds, actuarial methods, investments, partnerships, statements for special purposes, receiverships, consolidated balance sheets, foreign exchange. Prerequisite: Accountancy 106 and 108; an average of 3.0 in preceding courses in accountancy.

ANTHROPOLOGY

Anthro. 102. Introduction to Anthropology: The Origin of Man and Culture. Credit 4 hours. An introduction to and general survey of human origins and early man, physical anthropology, race and racism, linguistics, archaeology and the beginning of human civilization. Recommended though not required to be taken with Anthropology 103 as a survey of the field of anthropology. This course with Anthropology 103 satisfies the social science requirement in Liberal Arts and Sciences.

Anthro. 103. Introduction to Anthropology: The Growth of Culture. Credit 4 hours. An introduction to and survey of the development of cultures with special attention to invention, diffusion, adaptation, integration, and other processes of cultural growth as illustrated by primitive and native populations of the world. Recommended though not required to be taken with Anthropology 102 as a survey of the field of anthropology. This course with Anthropology 102 satisfies the social science requirement in Liberal Arts and Sciences.

ARCHITECTURE

Arch. 101. Introduction to Architecture. Credit 3 hours. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Prerequisite: Credit or registration in General Engineering 107.

Arch. 113. History of Ancient Architecture. Credit 2 hours. A description and analysis of the development of the architecture of the ancient East, Greece and Rome, related to the environmental and cultural setting. Prerequisite: Architecture 131 or sophomore standing.

Arch. 131. Architectural Design. Credit 3 hours. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. Prerequisite: Sophomore standing, Arch. 101, credit in G.E. 108, and registration in Arch. 141.

Arch. 132. Architectural Design. Credit 3 hours. Continued study of the fundamentals of architectural design. Prerequisite: Architecture 131.

Arch. 141. Materials and Methods of Construction I. Credit 2 hours. Wood frame construction as used in houses; manufacture and performance characteristics of materials; farming systems; typical details; finishing materials. Prerequisite: Registration in Architecture 131, and credit in G.E. 108.

Arch. 142. Materials and Methods of Construction II. Credit 2 hours. Non-fire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures and drawings. Prerequisite: Architecture 141.

Arch. 171. Drawing Theory. Credit 2 hours. Orthographic, oblique, isometric projections, and perspective. Not open to students expecting a degree in architecture. Students with 95 or more credit hours receive only 1 hour credit.

Arch. 172. Drawing Theory. Credit 2 hours. Continuation of Architecture 171. The science of shades and shadows on orthographic, oblique, isometric projections, and perspective. Not open to students expecting a degree in architecture. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Architecture 171.

Arch. 214. History of Medieval Architecture. Credit 3 hours. A description and analysis of the development of medieval architecture in Europe and the East related to the environmental and cultural setting. Prerequisite: Architecture 113 or consent of instructor.

Arch. 233. Architectural Design. Credit 3 hours. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. Prerequisite: Architecture 132, credit or registration in T.A.M. 150 or 171, and registration in Arch. 241.

Arch. 241. Materials and Methods of Construction III. Credit 2 hours. Semi-fireproof construction, manufacture and performance characteristics of materials; framing systems; typical details; finishing materials. Prerequisite: Architecture 142 and registration in Arch. 233.

ART

Art 111. Survey of Art History. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance.

Art 112. Introduction to Renaissance and Modern Art. Credit 3 hours. Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period.

Art 115. Art Appreciation. Credit 3 hours. An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students.

Art 117. Drawing I. Credit 3 hours. Theory and practice in the elements of drawing.

Art 118. Drawing II. Credit 2 hours. Continuation of Art 117. Prerequisite: Art 117.

Art 119. Design. Credit 2 hours. Theory and practice in the elements of design.

Art 120. Design. Credit 3 hours. Continuation of Art 119. Prerequisite: Art 119.

Art 125. Life Drawing. Credit 2 hours. Prerequisite: Art 118.

Art 126. Life Drawing. Credit 2 hours. Continuation of Art 125. Prerequisite: Art 125.

Art 131. Elementary Composition. Credit 2 hours. Pictorial composition in line, pattern, and color. Prerequisite: Art 118 and 120.

Art 132. Elementary Composition. Credit 2 hours. Continuation of Art 131. Prerequisite: Art 131.

Art 133. Design Workshop. Credit 2 hours. Fundamentals of three-dimensional design. Primarily for students in the industrial curriculum. Prerequisite: Art 118 and 120.

Art 134. Design Workshop. Credit 2 hours. Continuation of Art 133. Prerequisite: Art 133.

Art 141. Still Life. Credit 2 hours. Painting in oil from arranged groups. Prerequisite: Art 118 and 120.

Art 142. Still Life. Credit 2 hours. Continuation of Art 141. Prerequisite: Art 141.

Art 151. Sculpture. Credit 2 hours. Anatomical and ornamental forms: plaster molds and models; wood and stone sculpture. Prerequisite: Art 118 and 120.

Art 152. Sculpture. Credit 2 hours. Continuation of Art 151. Prerequisite: Art 151.

Art 181. Freehand Drawing. Credit 2 hours. Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture.

Art 182. Freehand Drawing. Credit 2 hours. Continuation of Art 181. Simple groups for block form, still life, and casts in pencil and charcoal. Primarily for students in architecture. Prerequisite: Art 181.

Art 183. Freehand Drawing. Credit 2 hours. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 182.

Art 184. Freehand Drawing. Credit 2 hours. Continuation of Art 183. Charcoal drawing from the cast; water color. Primarily for students in architecture. Prerequisite: Art 183.

Art 281. Freehand Drawing. Credit 2 hours. Arrangement of form and color, rhythm and sequence, harmony, and contrast; charcoal, pen, pencil, and water color drawing from cast and still life; outdoor sketching. Primarily for students in architecture. Prerequisite: Art 184.

BIOLOGICAL SCIENCES

Biology 101. Fundamentals of Biology. Credit 4 hours. This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdoms, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for Biol. 101 in addition to D.G.S. 131 or Biol. 111.

Biology 102. Fundamentals of Biology, Continued. Credit 4 hours. Application of biological principles to the living world. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biol. 101. Credit will not be given for Biol. 102 in addition to D.G.S. 132.

Biology 103. Introductory Biology for Selected Students. Credit 4 hours. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Credit will not be given for Biol. 103 in addition to D.G.S. 131, Biol. 101, or Biol. 111. This course satisfies the general

education sequence in the biological sciences for those students entering with Advanced Placement status. Prerequisite: Advanced Placement in biology; or James Scholar status; or placement by the department.

Biology 111. General Botany. Credit 4 hours. The basic principles of plant structure, growth, physiology, reproduction, evolution and distribution, with special emphasis upon the role of the plant kingdom in the cycles of nature and human life. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Placement, or consent of the instructor. Credit will not be given for Biol. 111 in addition to Biol. 101 or D.G.S. 131.

Biology 115. Introductory Systematic Botany (Plant Taxonomy). Credit 4 hours. Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures and laboratory. Prerequisite: Biology 102 or 111.

Biology 116. Economic Botany. Credit 3 hours. Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Applications to forest, drug, food, textile, beverage and other industries. Lectures and discussion. Prerequisite: Biology 102 or 111.

Biology 120. The Plant Kingdom. Credit 4 hours. An introductory study of the life histories of plants representative of algae, fungi, ferns, and seed plants. Prerequisite: Biology 111 or 102; or Biology 101 with a grade of B or A.

Biology 121. Microbiology. Credit 4 hours. A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures and laboratory. Prerequisite: Biology 102; or Biology 101 with a grade of B or A.

Biology 126. Advanced General Bacteriology. Credit 4 hours. General technic, special apparatus and methods. Lectures and laboratory. Prerequisite: Biology 121, credit or registration in Chemistry 105.

Biology 131. General Zoology. Credit 4 hours. A survey of the animal kingdom. The structures, functions, life history, adaptations, classification and evolutionary relationships of animals. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 111; or Biology 101 with a grade of B or A. Premedical students receiving C or lower in Biology 101 must take this course before Biology 132.

Biology 132. Comparative Vertebrate Anatomy. Credit 5 hours. Classification and comparative anatomy of vertebrates, including functions of their organs and organ systems. Lectures and laboratory. Prerequisite: Biology 102 or 131; or Biology 101 with a grade of B or A.

Biology 136. Bird Study. Credit 2 hours. Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation.

Biology 141. Vertebrate Physiology. Credit 4 hours. The course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures and laboratory. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Biology 102; or Biology 101 with a grade of B or A.

Biology 142. Physiology of the Nervous System. Credit 4 hours. This course is designed to furnish an understanding of the physiological activities by which the nervous system carries out its function. Recommended as background for students of psychology, education, or biological sciences. Lectures and laboratory. Prerequisite: Biology 141.

Biology 333. Vertebrate Embryology. Credit 5 hours. The development of the vertebrate body and its organs. Lectures and laboratory. Prerequisite: Biology 132, junior standing.

Biology 341. General Ecology. Credit 3 hours. The study of organisms with relation to environment emphasizing population and community aspects. Lectures and discussion. Field trips required. Prerequisite: One year of biological science, junior standing.

Biology 351. Genetics and Evolution. Credit 3 hours. Analysis of the theories of evolution, the mechanism of evolutionary changes, and the principles of heredity. Lectures and discussion. Prerequisite: One year of biological science, junior standing.

BUSINESS LAW

Business Law 100. Basic Principles of Business Law. Credit 3 hours. Basic principles of business law, covering the subjects of contracts, sales, negotiable instruments and agency. Credit toward graduation will not be given for Business Law 201 or 261 in addition to Business Law 100. Prerequisite: Accountancy 105; Economics 102; 45 credit hours.

CHEMISTRY

Chem. 101. General Chemistry. Credit 4 hours. For students who have no entrance credit in high school chemistry, or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 102. General Chemistry. Credit 3 hours. For students who have had one year of high school chemistry, and whose preparation is adequate as indicated by placement examination. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: One unit of entrance credit in chemistry or equivalent.

Chem. 103. General Chemistry. Credit 4 hours. For engineering students who have had no chemistry or whose preparation is inadequate for Chemistry 102. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: One unit of entrance credit in physics, or 2½ units of entrance credit in mathematics, or credit in Mathematics 103 or 112.

Chem. 104. Chemistry of the Metallic Elements. Credit 4 hours. Limited to students in engineering curricula. Credit in Chemistry 104 will not be

granted to students who have received credit in Chemistry 105, 106, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 105. Inorganic Chemistry and Qualitative Analysis. Credit 5 hours. For students who are not eligible for Chemistry 104 or 106. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 106. Inorganic Chemistry. Credit 5 hours. Metallic elements. For students in curricula in chemistry, chemical engineering, and chemistry majors who are not premedical students. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104, 105, 108 or 109. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Chemistry 101, 102 or 103.

Chem. 107. General Chemistry. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.

Chem. 108. General Chemistry and Qualitative Analysis. Credit 5 hours. For students in curricula in chemistry or chemical engineering. Students with 95 or more credit hours receive only 3 hours credit. Credit is not granted to students who have received credit in Chemistry 104, 105, 106 or 109. Prerequisite: Chemistry 107.

Chem. 109. General and Inorganic Chemistry. Credit 5 hours. A course in general chemistry and the chemistry of the elements and inorganic compounds, completing in one semester the work usually taken in two. Limited to students in the engineering and physics curricula. Not open to students who have college credit in chemistry. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Open only to students in the top quarter of their graduating class who qualify on the Chemistry Placement Test and are placed in Mathematics 112 or above.

Chem. 110. Qualitative Analysis. Credit 5 hours. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students who major in chemistry or chemical engineering and those registered in the curriculum in chemistry except students who qualify for Chemistry 107 and 108. Prerequisite: Chemistry 106 or equivalent.

Chem. 122. Elementary Quantitative Analysis. Credit 5 hours. Gravimetric and volumetric analysis, stoichiometrical relations, practical application. Prerequisite: Chemistry 105 or equivalent.

Chem. 123. Quantitative Analysis for Engineers. Credit 5 hours. A course in quantitative analysis designed for the needs of engineers, especially ceramic and metallurgical. Prerequisite: Chemistry 104, 105 or 109.

Chem. 124. Quantitative Analysis. Credit 5 hours. For all students in the chemistry curriculum and chemical engineering. Prerequisite: Chemistry 108, 110 or equivalent.

Chem. 132. Elementary Organic Chemistry. Credit 3 hours. This course does not satisfy the organic chemistry prerequisite for Chemistry 350, 354 or 355. Beginning course in organic chemistry especially for students in the prenursing curriculum. Prerequisite: Chemistry 101, 102, 109 or equivalent.

Chem. 133. Elementary Organic Chemistry. Credit 5 hours. To fulfill the requirements for premedical, predental, preveterinary, dietetics, and home economics students. Prerequisite: Chemistry 105 or equivalent.

Chem. 234. Organic Chemistry. Credit 5 hours. For students whose major is chemistry, or for those registered in the curriculum in chemistry or chemical engineering. Prerequisite: Chemistry 124.

Chem. 247. Elementary Physical Chemistry. Credit 4 hours. For premedical students and others not in chemistry and engineering curricula. Lectures and laboratory. Prerequisite: Chemistry 122 and 133; Physics 102 or equivalent.

Chem. 336. Organic Chemistry. Credit 3 hours. For premedical students who have completed Chemistry 122 and 133 and have the recommendation of the department, and for Chemistry majors who have completed Chemistry 234.

Chem. 337. Organic Chemistry Laboratory. Credit 2 hours. For students with credit in, or registered in, Chem. 336.

Chem. 342. Physical Chemistry. Credit 3 hours. Introduction to the study of chemical principles. Prerequisite: Chemistry 124; Physics 106, 107 and 108, or two semesters of general physics with concurrent registration in the third semester; credit or registration in Mathematics 143; or equivalents.

Chem. 343. Physical Chemistry Laboratory. Credit 1 hour. Quantitative experimental study of chemical principles. Prerequisite: Credit or registration in Chemistry 342.

CIVIL ENGINEERING

C. E. 101. Elementary Surveying. Credit 3 hours. Fundamental surveying operations. Prerequisite: General Engineering 101 and credit or registration in Mathematics 123.

C. E. 195. Introduction to Civil Engineering. No credit hours. A series of informal lectures and discussions on the field of civil engineering, including the position and function of the civil engineer, history of civil engineering and a qualitative approach to civil engineering problems. Prerequisite: Sophomore standing in civil engineering.

C. E. 207. Surveying Camp. Credit 5 hours. Principles and practice of topographic engineering, route engineering, hydrographic surveying, and control surveying. Given in summer surveying camp at Camp Rabideau in northern Minnesota. Prerequisite: Civil Engineering 101.

C. E. 210. Properties of Soils. Credit 3 hours. Identification and classification of earth materials; hydraulic and mechanical properties of soils; character of natural soil deposits; and appraisal of methods of subsurface exploration. Laboratory determination of the index properties of soils. Prerequisite: Geology 150, Credit or registration in Theoretical and Applied Mechanics 221, and junior standing in engineering or architecture.

C. E. 214. Composition and Properties of Concrete. Credit 2 hours. Properties and uses of cements, aggregates, mixing water, and admixtures; composition and properties of concrete mixtures; field practices in the

production of concrete. Laboratory practice in the design and control of quality concrete. Prerequisite: Theoretical and Applied Mechanics 223 or 224, and junior standing in engineering or architecture, or consent of instructor.

C. E. 215. Engineering and Construction Economy. Credit 3 hours. An introduction to engineering and construction economy; fundamentals of engineering and construction costs; engineering and construction economy studies; and mathematics of finance. Prerequisite: Junior standing.

C. E. 250. Hydrology and Engineering Hydraulics. Credit 3 hours. Precipitation and runoff; factors influencing stream yield; storm rainfall vs. storm runoff; rational and unit-hydrograph procedures; floods and droughts; frequency and deficiency analysis; ground water hydrology and hydraulics; storage equation; flow in open channels. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 232.

C. E. 261. Theory of Determinate Structures. Credit 3 hours. A study of the fundamental theory of statically determinate structures with applications to the evaluation of reactions, shears, and moments in beams and stresses in trusses for fixed and moving loads; introduction to deflection computations. Prerequisite: Credit or registration in Theoretical and Applied Mechanics 221.

C. E. 262. Theory of Indeterminate Structures. Credit 3 hours. A study of the fundamental theory of statically indeterminate structures with applications to the evaluation of deformations, reactions, shears, and moments in continuous structures. Prerequisite: Civil Engineering 261.

C. E. 263. Structural Design in Metals, I. Credit 4 hours. An introduction to the design of metal structures; behavior of members and their connections; theoretical, experimental, and practice bases for proportioning members and connections. Prerequisite: Credit or registration in Civil Engineering 262; Theoretical and Applied Mechanics 224.

C. E. 264. Reinforced Concrete Design, I. Credit 3 hours. An introduction to the design of reinforced concrete structures; behavior of beams, columns, and frames; theoretical, experimental, and practical bases for proportioning members. Prerequisite: Civil Engineering 214; credit or registration in Civil Engineering 262; Theoretical and Applied Mechanics 224.

ECONOMICS

Econ. 100. Introduction to Business. Credit 3 hours. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only.

Econ. 102. Principles of Economics I. Credit 3 hours. An introduction to the major areas of modern economic theory and public policy—product prices, the firm under varying conditions of competition and monopoly, productive factor pricing. Prerequisite: One year of college work.

Econ. 103. Principles of Economics II. Credit 3 hours. Continuation of Economics 102. Monetary theory, national income theory, and international economics; public policy arising out of the problems of the structure of industry, economic stability, monetary and banking institutions. Prerequisite: Economics 102.

Econ. 108. Elements of Economics. Credit 3 hours. A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income and the general price level, the monetary and banking system, public finance, labor relations, and international trade. For non-commerce students only. Prerequisite: Second-semester freshman standing. Not open to those who have had Economics 102 or 103.

Econ. 136. American Economic History. Credit 3 hours. Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor from 1790 to the present. Open to freshmen and sophomores only.

Econ. 138. European Economic History. Credit 3 hours. The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. Open to freshmen and sophomores only.

Econ. 170. Elements of Statistics. Credit 3 hours. Method of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. Commerce students are required to register in Economics 170; they will not receive credit for Psychology 135, Mathematics 161, or Economics 171. Prerequisite: Economics 102 or 108; Sophomore standing.

Econ. 210. Comparative Economic Systems. Credit 3 hours. The economics of capitalism, socialism, communism, and fascism. This course with Economics 108 satisfies the general education requirements in social science in the College of Liberal Arts and Sciences. Prerequisite: Economics 102 and 103; or 108.

Econ. 214. Government Finance and Taxation. Credit 3 hours. A general survey of government finance at the federal, state, and local levels, including government expenditures, principles of taxation, government borrowing and the national debt, fiscal policy, and intergovernmental fiscal relations. Prerequisite: Economics 102 and 103, or 108.

EDUCATION

Ed. 101. Nature of the Teaching Profession. Credit 2 hours. An orientation course. This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher.

Ed. 109. Educational Psychology. Credit 3 hours. The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. Prerequisite: Psychology 100.

Ed. 201. Foundations of American Education. Credit 2 hours. A study of contemporary American public education in the setting of current American culture; confusions and issues with respect to the school program, its purposes, its content, its methods, and its organization

are related to confusions and issues with respect to social, economic, and political purposes and organizations, both domestic and international. An attempt is made through the study of these relationships to clarify the contemporary social functions of the American school and teaching profession. Prerequisite: Psychology 100; Education 101.

ELECTRICAL ENGINEERING

E. E. 126. Electric Circuits and Fields. Credit 4 hours. Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. Prerequisite: Physics 107; Mathematics 143; credit or registration in Mathematics 345.

E. E. 220. Basic Electrical Engineering. Credit 3 hours. Fundamentals of electric and magnetic circuits and characteristics of electron tubes and circuits. Prerequisite: Physics 106 and 107; Mathematics 143.

E. E. 250. Introduction to Circuit Analysis. Credit 5 hours. Study of the formulation and solution of network equations for sinusoidal and general signals, network theorems, three-phase systems. Prerequisite: Physics 107; credit or registration in Electrical Engineering 251.

E. E. 251. Circuit Laboratory. Credit 1 hour. To accompany Electrical Engineering 250. Prerequisite: Credit or registration in Electrical Engineering 250.

ENGLISH

English 101. Introduction to Poetry. Credit 3 hours. Understanding of poetry through the reading and discussion of representative poems. Students with 95 or more credit hours receive only 2 hours credit. This course, plus English 102 and 103, satisfies the humanities requirement in general education.

English 102. Introduction to Drama. Credit 3 hours. Understanding of drama through the reading and discussion of representative plays. The reading list includes selections from Greek, Elizabethan, modern English, Continental, and American drama. Students with 95 or more credit hours receive only 2 hours credit.

English 103. Introduction to Fiction. Credit 3 hours. Understanding fiction through the reading and discussion of representative American, British, and Continental fiction of several periods and types. Students with 95 or more credit hours receive only 2 hours credit.

English 113. American Literature. Credit 3 hours. Classic American authors before the Civil War; an introduction to Franklin, Poe, Emerson, Hawthorne, Melville, Whitman, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 114. American Literature. Credit 3 hours. Classic American authors after the Civil War to the present; an introduction to Mark Twain, James, Dreiser, Hemingway, O'Neill, Frost, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 121. Chief English Writers Before 1800. Credit 3 hours. Chaucer, Shakespeare, Donne, Pope, and other writers. This course with English 122 and 123 meets the general education requirement in humanities in

the College of Liberal Arts and Sciences. This course with English 122 is the normal prerequisite to the English major. Prerequisite: Sophomore standing or exemption from Rhetoric 102, or designation as Edmund J. James Scholar.

English 122. Chief English Writers of the Nineteenth Century. Credit 3 hours. Coleridge, Tennyson, Arnold, and other writers. This course with English 121 and 123 meets the general education requirement in humanities in the College of Liberal Arts and Sciences. This course with English 121 is the normal prerequisite to the English major. Prerequisite: Sophomore standing or exemption from Rhetoric 102 or designation as Edmund J. James Scholar.

English 123. Chief Modern English Writers. Credit 3 hours. Conrad, Eliot, Joyce, Lawrence, Shaw, Yeats, and others. Prerequisite: Sophomore standing or exemption from Rhetoric 102 or designation as Edmund J. James Scholar.

English 131. Introduction to Shakespeare. Credit 3 hours. Prerequisite: Sophomore standing or exemption from Rhetoric 102.

English 225. English Literature from 1588 to 1660. Credit 3 hours. Survey of English literature of the Renaissance; Sidney, Marlow, Donne, Jonson, Herrick, Bacon, Burton, and other writers.

English 245. English Literature from 1688 to 1789. Credit 3 hours. Swift, Defoe, Steele, Addison, Dryden, Pope, Gray, Goldsmith, Johnson, etc.

English 246. The English Romantic Poets, Credit 3 hours. A study in depth of the poetical works of Wordsworth, Coleridge, Scott, Byron, Shelley, and Keats and of lesser poets of the early nineteenth century. It is also concerned with critical writing by these and other men who contributed to an understanding of the poetry of the Romantic period.

English 255. Survey of American Literature from 1607 to the Civil War. Credit 3 hours. A comprehensive historical survey of American Literature and its cultural background from 1607 to the Civil War. Credit is not given for English 255 in addition to English 113.

English 256. Survey of American Literature II. Credit 3 hours. A comprehensive survey of American literature and its cultural background from the Civil War to the mid-twentieth century.

English 263. Early Victorian Literature. Credit 3 hours. The prose and poetry of the chief writers in the period 1832-1859—Browning, Tennyson, E. B. Browning, Arnold, FitzGerald, Disraeli, Dickens, Thackeray, Carlyle, Macaulay, the Brontës, and others.

English 347. Drama of the Restoration and 18th Century. Credit 3 hours. Major dramatic works after the reopening of the public theatres in 1660; development from aristocratic baroque tragedy and comedy to bourgeois sentimental drama and other forms: Dryden, Etherege, Wycherley, Congreve, Vanbrugh, Farquhar, Steele, Goldsmith, Sheridan, and others.

FINANCE

Finance 250. Money, Credit, and Banking. Credit 3 hours. A study of the monetary and banking systems; the Federal Reserve System, price

fluctuation, foreign exchange financing, and specialized financial institutions in the United States. Prerequisite: Economics 102 and 103, or 108.

Finance 254. Business Finance. Credit 3 hours. Nature of business finance and its relation to economics, accounting, and law; legal nature and forms of business enterprise; capital, capitalization, and financial plan; financial analysis and interpretation; initial financing; refinancing; working capital; income administration, including dividend policies; expansion; internal and external financial and economic relationships of the firm. Prerequisite: Economics 102 and 103; or 108; Accountancy 105 or 201.

FRENCH

French 101. Elementary French. Credit 4 hours. Grammar, pronunciation, reading of modern authors, composition, and conversation. For students who have no credit in French. Students with 95 or more credit hours receive only 3 hours credit. No credit for graduation is given for French 101 without French 102. All students in this course are required to register for one hour of work weekly in the language laboratory.

French 102. Elementary French. Credit 4 hours. Continuation of French 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: French 101 or one year of high school French. All students in this course are required to register for one hour of work weekly in the language laboratory.

French 103. Modern French. Credit 4 hours. Rapid reading of modern authors, syntax, and composition; some conversational practice. Prerequisite: French 102 or two years of high school French.

French 104. Modern French. Credit 4 hours. Continuation of French 103. Prerequisite: French 103 or three years of high school French.

French 113. Conversational Practice. Credit 1 hour. Oral practice for the development of elementary conversational skill and the improvement of pronunciation. Designed as a supplement to French 103 and 104, and open only to students concurrently enrolled in either French 103 or 104. Prerequisite: French 102 or two years of high school French.

French 201. Introduction to French Literature. Credit 3 hours. Prerequisite: French 104 or four years of high school French.

French 202. Introduction to French Literature. Credit 3 hours. Continuation of French 201. Prerequisite: French 104 or four years of high school French.

French 217. Modern French Drama I. Credit 3 hours. Major Dramatists from 1800 to 1918. Prerequisite: French 201 and 202 or consent of instructor.

French 218. Modern French Drama II. Major Dramatists from 1918 to the present. Credit 3 hours. Prerequisite: French 201 and 202 or consent of instructor.

GENERAL ENGINEERING

G. E. 101. Engineering Graphical Communication. Credit 3 hours. Conveying ideas by means of freehand sketches; orthographic projection including auxiliary views; isometric and oblique projections; dimensioning, geometric and positional tolerancing; specification of materials; use of National Standards; charts and diagrams. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Plane geometry.

G. E. 102. Engineering Geometry. Credit 3 hours. Theory of projections; the analysis and synthesis of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, shades and shadows, perspective projection, and fundamentals of nomography. Prerequisite: Plane geometry; General Engineering 101.

G. E. 107. Architectural Projections. Credit 2 hours. Instrumentation; lettering; projection; intersections; conventions; shades and shadows. Prerequisite: Plane geometry.

G. E. 108. Architectural Projections. Credit 2 hours. Shades and shadows; oblique, isometric, and perspective drawings; developments. Prerequisite: General Engineering 107.

G. E. 210. Industrial Production Illustration. Credit 3 hours. Mechanical and freehand drawings in axonometric, oblique, and perspective; shades and shadows; rendering of drawings with various media including some with the airbrush; industrial production illustration. Prerequisite: General Engineering 102, or 107 and 108.

G. E. 213. Graphical Calculations. Credit 2 hours. Rectification of curves from laboratory data to devise empirical equations using various types of coordinate paper; construction and use of Nomograms or Alignment charts; introduction to graphical mathematics, graphical calculus; use of slide rule with special emphasis on the log-log scales. Prerequisites: Credit in G. E. 101 or 103 or equivalent and registration in Math 143.

G. E. 220. History of Engineering. Credit 3 hours. Study of the important elements in the growth of the art and science of engineering from ancient times to the present; lives of some of the men who have been leaders; effect of engineering on the social conditions of the various periods. Accepted as a social science humanities elective in all engineering curricula. Prerequisite: Junior standing.

GEOGRAPHY

Geog. 104. World Regional Geography. Credit 3 hours. Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 105. Introductory Economic Geography. Credit 3 hours. Man's utilization of the major economic resources of the world from the standpoint of geographic patterns. Students with 95 or more credit hours receive only 2 hours credit.

Geog. 107. Weather and Climate. Credit 4 hours. Planetary relations; the atmosphere, its composition, functions and behavior in the produc-

tion of various weather types; air masses and air mass analysis; climatic types and climatic regions; application to present day activities. This course and Geography 108 meet the general education requirements in physical sciences in Liberal Arts and Sciences.

Geog. 108. Landforms and Earth Resources. Credit 4 hours. The study of landforms from the geographic point of view; maps and their use; earth resources (native vegetation, soils, water resources, mineral resources); their development and utilization. This course and Geography 107 meet the general education requirements in physical sciences in Liberal Arts and Sciences.

Geog. 114. Conservation of Natural Resources. Credit 3 hours. Elements of the conservation of natural resources (soils, water, biotic, mineral, recreational) with special emphasis given to the general principles of conservation as they apply to the United States. Prerequisite: Sophomore standing.

Geog. 123. Geography of Illinois. Credit 3 hours. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. Prerequisite: One course in Geography or consent of instructor.

Geog. 386. Political Geography. Credit 3 hours. World patterns of nations in relation to their natural environmental backgrounds: European nations; Africa, the exploited continent; national structures in Asia; western hemisphere nations.

GEOLOGY

Geol. 101. Physical Geology. Credit 4 hours. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. Geology 101 and 102 meet the general education requirement in the physical sciences in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Geol. 102. Historical Geology. Credit 4 hours. Evolution of the earth and its life. Lectures and laboratory. One one-day field trip required. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Geology 101 or equivalent. This course, with Geology 102, meets the physical sciences requirements in Liberal Arts and Sciences.

Geol. 110. Field Work. Credit 2 hours. Field observation in St. Francois Mountains and adjacent parts of Missouri and Illinois. (During spring vacation.) Two three-hour class meetings to be arranged. Credit is given only on completion of a satisfactory written report. Prerequisite: Geology 101, 150, or Physical Science 102.

Geol. 131. Mineralogy. Credit 4 hours. A systematic study of minerals. The nature of minerals as crystalline materials, and their geologic relations are emphasized. Crystal models, crystals, and the common nonsilicate minerals are studied in the laboratory. Lecture and laboratory. Prerequisite: One semester of college chemistry.

Geol. 132. Mineralogy. Credit 4 hours. A systematic study of minerals and rocks. The geologic relationships of minerals and rocks are emphasized. The common silicate minerals and the important varieties of rocks are studied in the laboratory. Lecture and laboratory. Prerequisite: Geology 131.

Geol. 150. Geology for Engineers. Credit 3 hours. Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

German 101. Elementary German. Credit 4 hours. Oral practice, reading, and grammar for beginners. Not open to students who have high school credit in this language. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for German 101 without German 102. All students in this course are required to register for one hour of work weekly in the language laboratory.

German 102. Elementary German. Credit 4 hours. Continuation of German 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: German 101 or one year of high school German. All students in this course are required to register for one hour of work weekly in the language laboratory.

German 103. Intermediate German. Credit 4 hours. Modern narrative prose. Oral practice and sight reading. Prerequisite: German 102, two years of high school German, or equivalent.

German 104. Intermediate German. Credit 4 hours. Continuation of German 103. Classical and modern narrative prose. Oral practice and sight reading. Prerequisite: German 103, three years of high school German, or equivalent.

German 113. Practice in Conversation. Credit 2 hours. Oral practice for the development of elementary skill in conversation and the improvement of pronunciation. This course is supplementary to German 103 and 104. Prerequisite: German 102 or two years of high school German; registration in German 103 or 104.

German 210. Masterpieces of German literature. Credit 3 hours. Introduction to German literature, in subjects, forms, and ideals. Prerequisite: Two years of college German, or equivalent.

German 211. Conversation and Writing. Credit 3 hours. Prerequisite: German 104, or German 103 and 113 or equivalent.

German 252. Modern German Drama. Credit 3 hours. A study of the drama of the nineteenth and twentieth centuries, its relation to the Greek drama and world drama. Prerequisite: German 210 or equivalent.

HISTORY

Hist. 111. History of Western Civilization to 1815. Credit 4 hours. Europe from the age of the great discoveries to the close of the Napoleonic wars. This course with History 112 meets the social science requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 112. History of Western Civilization from 1815 to the Present. Credit 4 hours. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. Credit 4 hours. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 131. History of England to 1714. Credit 4 hours. A survey of the political and constitutional, social and economic, church and cultural, and imperial history of the British people from the beginning of English history through 1714. This course with History 132 meets the humanities requirement in Liberal Arts and Sciences. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 132. History of England from 1714 to the Present. Credit 4 hours. A survey of the political and constitutional, social and economic, diplomatic and imperial, and cultural history of the British people from 1714 to the present. Students with 95 or more credit hours receive only 3 hours credit.

Hist. 151. History of the United States to 1865. Credit 4 hours. Colonial foundations, movement for independence, early years of the Republic. This course with History 152 meets the social science requirement in Liberal Arts and Sciences.

Hist. 152. History of the United States from 1865 to the Present. Credit 4 hours. A century of national life and organization. This course with History 151 meets the social science requirement in Liberal Arts and Sciences.

Hist. 181. The Ancient World. Credit 3 hours. Ancient empires and Greece. Prerequisite: Sophomore standing.

Hist. 182. The Ancient World. Credit 3 hours. Rome. Prerequisite: Sophomore standing.

Hist. 369. Constitutional Development of the United States to 1865. Credit 3 hours. Prerequisite: one year in college of United States or English History or one year of Political Science.

Hist. 370. Constitutional Development of the United States since 1865. Credit 3 hours. Prerequisite: one year in college of United States or English History or one year of Political Science.

HUMANITIES

Humanities 101. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature, and the relationship between recent literature and the classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 101 in addition to English 101, 102, or 103. This course, plus Humanities 102, satisfies the general education requirement in the humanities.

Humanities 102. Values in Literature. Credit 4 hours. A general education course designed to guide the student to an understanding and appreciation of values in literature and classics. Assigned works are selected to illustrate and clarify problems in literary appreciation. Literary types studied include poetry, fiction, drama, and the film. Credit is not given for Humanities 102 in addition to English 101, 102, or 103. This course, plus Humanities 101, satisfies the general education requirement in the humanities.

Humanities 151. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the

thinking of the Western World on the topics of man's fate and his personal adjustment to life. This course, plus Humanities 152, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing.

Humanities 152. The Heritage of Western Culture. Credit 4 hours. A study of literary masterpieces representing significant contributions to the thinking of the Western World in relation to the state and society. This course, plus Humanities 151, satisfies the general education requirement in the humanities. Prerequisite: Sophomore standing.

HYGIENE

Hygiene 104. Personal and Community Hygiene. Credit 2 hours. This course covers basic principles of hygiene. Especially recommended for those going into teaching, occupational therapy, social work, etc. Students with 95 or more credit hours receive only 1 hour credit.

Hygiene 110. Public Health. Credit 2 hours. Material presented deals with information about community public health problems and the program designed to prevent disease and promote health education. This is especially valuable for all people who go into health professions or related community work. Field trips and surveys supplement class work. Teachers, coaches, social workers will need this course in their future professional work. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Hygiene 104.

MANAGEMENT

Management 101. Industrial Organization and Management. Credit 3 hours. Organization plans, administrative policies, and management problems with special attention to manufacturing units. Prequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

Management 248. Personnel Administration. Credit 3 hours. A study of the foundations, functions, and objectives of personnel administration: history; contributions of various disciplines; company and union attitudes; organizational aspects; policies and procedures; union-management relationships; records and reports; personnel research. Prerequisite: Economics 102 or 108.

MARKETING

Marketing 101. Principles of Marketing. Credit 3 hours. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. Prerequisite: Economics 102, or 108, or consent of Associate Dean of the college; forty-five credit hours.

Marketing 211. Principles of Retailing. Credit 3 hours. The fundamentals of buying, sales promotion, pricing, control, and store finance. Prerequisite: Marketing 101.

MATHEMATICS

Math. 103. Introduction to College Algebra. Credit 3 hours. Fundamental operations, simple equations, factoring, fractions, exponents, radicals, linear equations in more than one variable, graphing, quadratic equa-

tions in one unknown. Students having 1½ entrance units in algebra receive no credit. Students with 95 or more credit hours receive no credit.

Math. 109. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and its relations to science, art, philosophy, and knowledge in general. Mathematics 109 and 110 meet the physical science requirement in general education in Liberal Arts and Sciences. Prerequisite: Consent of the department.

Math. 110. Fundamentals of Mathematics. Credit 4 hours. For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. Prerequisite: Mathematics 109.

Math. 111. Algebra. Credit 5 hours. Students with 95 or more credit hours receive only 3 hours credit. Required for students in Architecture deficient in algebra. Other students admitted only by consent of their college office and the Mathematics Department. Prerequisite: Entrance algebra, 1 unit and plane geometry, 1 unit.

Math. 112. College Algebra. Credit 3 hours. Theory of quadratic equations, progressions, binomial theorem, permutations, combinations, determinants, introduction to the theory of equations, logarithms. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit.

Math. 114. Plane Trigonometry. Credit 2 hours. Identities, equations, addition formulas and derived relations, solution of right and oblique triangles, radian measure, inverse functions. Students with 95 or more credit hours receive only 1 hour credit. Prerequisite: Entrance algebra, 1½ units, or Mathematics 103; plane geometry, 1 unit.

Math. 120. Introduction to Modern Mathematics. Credit 3 hours. This course introduces abstract mathematical thinking. It covers the basic elementary properties of sets and introduces groups, rings, and fields as typical examples of frequently used mathematical systems. The categorical properties of special sets of numbers are considered. Emphasis is placed on modern topics and the modern approach to classical topics. Prerequisite: Math. 123 or consent of instructor.

Math. 123. Analytic Geometry. Credit 5 hours. Geometrical properties of curves and surfaces, coordinate systems, translation and rotation of axes, higher plane curves, parametric equations. Students with 95 or more credit hours receive only 4 hours credit. Prerequisite: Mathematics 111 or 112, and 114.

Math. 133. Calculus. Credit 3 hours. First course for students of mathematics and engineering. Theory of limits, differentiation and integration of standard algebraic and trigonometric forms, applications. Prerequisite: Mathematics 123.

Math. 143. Calculus. Credit 5 hours. Second course for students of mathematics and engineering. The definite integral, integration of rational fractions, integration by parts, series and expansion of functions, hyperbolic functions, partial differentiation, multiple integrals, applications. Prerequisite: Mathematics 133.

Math. 149. Honors Credit 1 hour. Special problems in analytic geometry and calculus. Prerequisite: concurrent registration in honors section of Mathematics 123, 133 or 143. Enrollment is limited to students who give evidence of superior mathematical ability.

Math. 161. Statistics. Credit 3 hours. An elementary course in the basic concepts of probability and statistics, arrangement and analysis of raw data, hypothesis testing, confidence limits and method of least squares. Prerequisite: Mathematics 112; sophomore standing.

Math. 195. Introduction to Digital Computers. Credit 3 hours. An introduction to the general organization of computers, number systems and the design of logical circuits in order to prepare sequences of arithmetical operations. Practice in preparation of programs and actual use of a computer. Prerequisite: credit or registration in Math. 133.

Math. 263. Statistics in Engineering and Physical Sciences. Credit 3 hours. A first course in the use of statistical methods for interpreting the results of experiments. Applications to engineering and the physical sciences are emphasized. Prerequisite: One year of calculus.

Math. 315. Linear Transformations and Matrices. Credit 3 hours. A survey course in elementary matrix algebra, covering vector space, linear transformations, representation of transformations by matrices. Prerequisite: One year of calculus.

Math. 341. Differential Equations. Credit 3 hours. An introductory course to ordinary differential equations and their applications to physical problems. First and second order equations, linear equations, solutions in series form, operator methods in linear equations. This course is intended for students who wish to go on to a study of partial differential equations in Mathematics 342. Prerequisite: One year of calculus.

Math. 342. Differential Equations. Credit 3 hours. An introductory course to partial differential equations, boundary value problems and Fourier series. Also considered are orthogonal functions, Fourier integrals, Bessel functions, applications to physical problems. Prerequisite: Mathematics 341.

Math. 343. Advanced Calculus. Credit 3 hours. The course includes the vector calculus, differential and integral calculus of functions of several variables, infinite series, power series, and line and surface integrals. Prerequisite: One year of calculus.

Math. 345. Differential Equations and Orthogonal Functions. Credit 3 hours. Theory of solving the standard elementary differential equations and application of these. Power series, solutions of second order equations and operational methods are included. A brief introduction is given to partial differential equations and Fourier series methods. Prerequisite: One year of calculus.

Math. 346. Complex Variables and Applications. Credit 3 hours. Theory and application of complex variables. Complex numbers, analytic functions, integrals, power series, residues and poles, conformal mapping. Prerequisite: Mathematics 343.

MECHANICAL ENGINEERING

M. E. 182. Manufacturing Processes. Credit 3 hours. Foundry practice; pattern design; hot and cold forming. Welding and allied processes;

machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. Prerequisite: General Engineering 101, sophomore standing.

M. E. 183. Materials Casting. Credit 3 hours. Casting as a process of fabrication; the molding process including machine molding; molding sands characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages and disadvantages; tray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. Prerequisite: General Engineering 101; sophomore standing.

M. E. 184. Metal Processing. Credit 3 hours. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. Prerequisite: General Engineering 101; credit or registration in Integral Calculus and Physics 107.

M. E. 209. Thermodynamics and Heat Transfer. Credit 3 hours. Thermodynamic analysis of energy transfer and transformation. Properties of simple working substances. Analysis of open and closed systems, direct and reverse cycles and processes involving transfers of mass and energy. Basic laws of heat transfer. Prerequisite: Physics 107, Mathematics 142 or 143.

M. E. 221. Mechanics of Machinery. Credit 5 hours. Linkages, cams, and gears; belts, ropes, and chains; velocities, accelerations, and inertia forces in machines; vibrations and critical speeds; balancing of engines; principle of the gyroscope. Prerequisite: T.A.M. 156 or registration in Theoretical and Applied Mechanics 211.

MILITARY SCIENCE

Mil. Sci. 101. Freshman Basic Drill and Theory: Credit 1 hour. Basic Military instruction to include: U.S. Army and National Security, Organization of the Army and ROTC, Branches of the Army and Their Missions, Customs of the Service, and Leadership, Drill and Command. Prerequisite: Military Science Department approval.

Mil. Sci. 102. Freshman Basic Drill and Theory: Credit 1 hour. Basic military instruction to include: Individual Weapons and marksmanship, Civil Defense, Field Sanitation, First Aid, Mass Casualties, Survival Training, and Leadership, Drill and Command. Prerequisite: Military Science Department approval.

Mil. Sci. 103. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: American Military History, and Leadership, Drill and Command. Prerequisite: Military Science 101 and 102 or Military Science Department approval.

Mil. Sci. 104. Sophomore Basic Drill and Theory. Credit 1 hour. Basic military instruction to include: Map Reading, Squad Tactics, and Leadership, Drill and Command. Prerequisite: Military Science 101 and 102 or Military Science Department approval.

MUSIC

Music 100. Rudiments of Theory. Credit 2 hours. Notation, scales, intervals, chords, terminology.

Music 130. Introduction to the Art of Music, I. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only.

Music 131. Introduction to the Art of Music, II. Credit 3 hours. Designed primarily for the layman. Main objectives are to train students in intelligent listening and to acquaint them with many great works of the literature of music. For nonmusic students only.

Music 150. Music Ensemble. Credit ½ hour. Band, Orchestra, Chorus. Admission by consent of director. This course may be repeated to earn a maximum of 2 semester hours of credit.

PHILOSOPHY

Phil. 101. Introduction to Philosophy. Credit 3 hours. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. Phil. 101, 102, 105 form an approved humanities sequence in Liberal Arts and Sciences. Credit 3 hours. Prerequisite: Sophomore standing.

Phil. 102. Logic. Credit 3 hours. Reasoning, detection of fallacies, evidence. Prerequisite: Sophomore standing.

Phil. 105. Moral Ideas and Practice. Credit 2 Hours. Credit is not given for both Philosophy 103 and 105. Prerequisite: Sophomore standing.

Phil. 303. History of Greek and Roman Philosophy. Credit 4 hours. The teachings of the philosophers who figure most prominently in the Greek and Roman era—approximately the period from the sixth century B.C. to the fourth century A.D. Prerequisite: Junior standing or consent of instructor. This course, together with Phil. 306, fulfills the General Education requirement in Humanities.

Phil. 306. History of Modern Philosophy. Credit 4 hours. Developments in philosophy from the sixteenth to the nineteenth century; what prominent philosophers have contributed to man's understanding of himself and his environment. Prerequisite: Junior standing or consent of instructor. This course, together with Philosophy 303, fulfills General Education requirements in Humanities.

PHYSICAL EDUCATION FOR MEN

P. E. M. 101, 102, 103, 104. Prescribed Exercises. Credit 1 hour. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P. E. M. 101. Students enrolling for the second, third, or fourth time should register for P. E. M. 102, 103, 104, respectively.

P. E. M. 106. Developmental Activities. Credit 1 hour. Activities that contribute to the development and maintenance of physical fitness according to social and hygenic standards.

P. E. M. 107. Beginning Swimming. Credit 1 hour. For nonswimmers (inability to swim 100 yards). Students must have 8:00 and 9:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 109. Advanced Swimming. Credit 1 hour. For swimmers (ability to swim at least 100 yards). Student must have 8:00, 9:00 and 10:00 hours free on TT. First class will meet in the Gym. A service fee of $7.50 per student will be collected during the first class period.

P. E. M. 112. Individual Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 113. Double Tumbling Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 114. Apparatus Stunts. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 117. Boxing. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 118. Wrestling. Credit 1 hour. Skill, knowledge, attitudes, and conditions.

P. E. M. 120. Personal Defense Activities. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 122. Individual Athletics. Credit 1 hour. Skills, knowledge, attitudes and conditions.

P. E. M. 123. Weight Lifting. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 129. Volleyball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 130. Basketball. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 132. Archery. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 136. Badminton. Credit 1 hour. Skills, knowledge, attitudes, and conditions.

P. E. M. 139. Backyard Sports. Credit 1 hour. Skills, knowledge, and conditions.

P. E. M. 140. Boating and Fishing. Credit 1 hour. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities or approval of the Director of Physical Education. Students must furnish their own personal equipment, but should purchase no equipment until after the first meeting of the class. Boats, canoes, life jackets will be furnished.

P. E. M. 142. Ballroom Dance. Credit 1 hour.

P. E. M. 143. American Square Dance. Credit 1 hour.

P. E. M. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors.

P. E. M. 151. Beginning Basketball. Credit 2 hours. Introductory skills, rules and strategy. For physical education majors. First eight weeks.

P. E. M. 152. Beginning Football. Credit 2 hours. Introductory skills, rules and strategy. For physical education majors. Second eight weeks.

P. E. M. 153. Fitness Programs. Credit 2 hours. Physical fitness tests; calisthenics, medicine ball, bulldozer, grass, all-out and locomotor exercises; leadership techniques. For physical education majors. To be taken with P.E.M. 154.

P. E. M. 154. Swimming. Credit 2 hours. Crawl, back, breast, and side strokes; diving; life saving. To be taken with P.E.M. 153. For physical education majors.

P. E. M. 155. Gymnastics. Credit 1 hour. Tumbling, apparatus stunts. To be taken with P.E.M. 156. For physical education majors. Second eight weeks.

P. E. M. 156. Wrestling. Credit 1 hour. Skills, rules. To be taken with P.E.M. 155. For physical education majors. Second eight weeks.

P. E. M. 157. Track and Field. Credit 1 hour. Track events, field events. To be taken with P.E.M. 158. For physical education majors. Second four weeks of first eight weeks.

P. E. M. 158. Baseball. Credit 1 hour. Baseball skills, rules. To be taken with P.E.M. 157. For physical education majors. First four weeks of first eight weeks.

P. E. M. 209. History of Sports. Credit 3 hours. Development of sports and physical education in Europe and United States since 1750. For physical education majors only.

RECREATION

Recreation 170. Outdoor Recreational Sports. Credit 2 hours. Soccer, touch football, volleyball, softball, speedball. Second eight weeks.

Recreation 171. Indoor Recreational Sports. Credit 2 hours. Badminton, handball, paddle tennis, squash, racquets, table tennis, weight lifting. First eight weeks.

Recreation 174. Camp Counseling. Credit 3 hours. Objectives, administration, techniques, activity programs, evaluation.

Recreation 176. Principles of Recreation. Credit 3 hours. History of leisure and recreation; concepts of play and recreation; major recreation agencies.

PHYSICAL EDUCATION FOR WOMEN

P. E. W. 100. Conditioning Activities. Credit 1 hour. Foundation course offering activities for the maintenance and improvement of physical fitness.

P. E. W. 102. Modified Activities. Credit 1 hour. Prescribed recreational sports, relaxation, and exercise. Prerequisite: Recommendation from the Department of Health Service.

P. E. W. 105. Elementary Rhythms. Credit 1 hour. Beginning techniques in the field of dance..

P. E. W. 106. Intermediate Rhythms. Credit 1 hour. Intermediate dance techniques, solo and group dance compositions. Prerequisite: Physical Education for Women 105 or consent of instructor.

P. E. W. 110. Elementary Swimming. Credit 1 hour. A beginning course for those with little aquatic experience.

P. E. W. 111. Sub-intermediate Swimming. Credit 1 hour. For those whose skill is not sufficient to permit registration in Intermediate Swimming.

P. E. W. 122. Speedball—Volleyball. Credit 1 hour. A fast out-of-doors sport combined with indoor volleyball.

P. E. W. 123. Basketball. Credit 1 hour.

P. E. W. 124. Volleyball. Credit 1 hour.

P. E. W. 125. Softball. Credit 1 hour.

P. E. W. 130. Badminton. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 131. Golf. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 132. Bowling. Credit 1 hour.

P. E. W. 135. Archery. Credit 1 hour. Personal equipment to be furnished by student. Supplemented by varied sports.

P. E. W. 136. Tennis. Credit 1 hour. Personal equipment to be furnished by student.

P. E. W. 138. Track and Field. Credit 1 hour.

P. E. W. 140. Boating and Fishing. Credit 1 hour. Open to students who have completed two semesters of physical education, or consent of instructor.

P. E. W. 141. Tumbling and Apparatus Stunts. Credit 1 hour. The side horse, parallel bars, stall bars, buck, etc., are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used.

P. E. W. 142. Ballroom Dance. Credit 1 hour.

P. E. W. 143. American Square Dance. Credit 1 hour.

P. E. W. 144. Elementary Folk Dance. Credit 1 hour.

P. E. W. 150. Professional Orientation. Credit 2 hours. Introduction to the fields of physical education, health, safety, recreation and dance.

P. E. W. 151. Body Mechanics, Gymnastics and Hockey. Credit 1 hour. Skill in fundamental body movements, posture and physical conditioning. For physical education majors.

P. E. W. 152. Volleyball and Softball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

P. E. W. 153. Hockey, Soccer and Basketball. Credit 1 hour. Skills, rules, team tactics. For physical education majors.

P. E. W. 154. Tumbling and Tennis. Credit 1 hour. Skills, stunts, trampoline; tennis skills, rules, tactics.

P. E. W. 166. Elementary School Games. Credit 2 hours. Games for classroom, playground, and gymnasium; programs, lesson planning, source materials. For physical education majors.

P. E. W. 201. Badminton, Archery, Track and Field. Credit 1 hour. Skills, rules and tactics.

DANCE

Dance 160. Beginning Contemporary Dance. Credit 1 hour. For physical education majors.

Dance 235. Folk, Square and Social Dance. Credit 2 hours. Designed for men and women students majoring in physical education, recreation and dance. Methods of teaching and directing ballroom, folk and American square dances in school and community groups with emphasis on organization and leadership.

Dance 236. Folk Dance. Credit 1 hour. Designed for men and women students majoring in physical education, recreation and dance. Typical English and European folk dances with emphasis upon teaching and directing of school and community groups.

HEALTH EDUCATION

H. E. 281. First Aid. Credit 2 hours. Red Cross course in first aid.

PHYSICAL SCIENCE

Phys. Sci. 101. Introduction to the Physical Sciences. Credit 4 hours. A course designed to meet the general education requirements in physical science. The more important principles of physics, chemistry, geology, and other branches of physical science are introduced and co-ordinated

in order to give the non-science student an understanding and appreciation of the field. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Two units of high school mathematics or consent of the department.

Phys. Sci. 102. Introduction to the Physical Sciences. Credit 4 hours. A continuation of Physical Science 101. Credit will not be given for both Physical Science 101-102 and Division of General Studies 141-142. Credit will not be allowed to a student who has college credit in physics or geology. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Physical Science 101, or Division of General Studies 141.

PHYSICS

Physics 101. General Physics (Mechanics, Heat, Sound). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite. Trigonometry.

Physics 102. General Physics (Electricity, Magnetism, Light, and Modern Physics). Credit 5 hours. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and architecture. Prerequisite: Physics 101.

Physics 106. General Physics (Mechanics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, Mathematics, physics, and chemistry. Prerequisite: Credit or registration in mathematics 133.

Physics 107. General Physics (Heat, Electricity, Magnetism). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Physics 106; credit or registration in Mathematics 143.

Physics 108. General Physics (Sound, Light, Modern Physics). Credit 4 hours. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. Prerequisite: Credit or registration in Physics 107 and Mathematics 143.

Physics 321. Theoretical Mechanics. Credit 4 hours. Laws of motion, vectors, statics, energy and momentum principles for a particle and for systems or particles, motion of a particle under constant forces, plane motion of a rigid body, simple harmonic motion and resonance, impact. Prerequisite: General Physics and Calculus.

Physics 322. Theoretical Mechanics. Credit 4 hours. Continuation of Physics 321. Motion of a particle under a variable force, central field motion, accelerated reference systems, motion of a particle subject to constraints, rotation of a rigid body in three dimensions, vibrating systems and normal coordinates, generalized coordinates. Prerequisite: Physics 321.

Physics 341. Electricity and Magnetism. Credit 4 hours. Lectures, problems, and laboratory. This course is fundamental to advanced courses and should be elected as early as possible by those intending to specialize in physics. Fundamental laws logically developed and summarized in

Maxwell's equations. Forces and energies associated with electric and magnetic properties of matter. Generation and propagation of electromagnetic waves. Prerequisite: General Physics and Calculus; Registration in Math. 341, 343 or 345.

Physics 342. Electricity and Magnetism. Credit 4 hours. Continuation of Physics 341. Boundary conditions and special methods in boundary value problems; interpretation of dielectric and magnetic properties of matter from the point of view of atomic and crystalline properties; use of complex notation in circuit problems; coupled circuits; nonlinear circuits; transmission lines; radiation from antennas; transmission and reflection of electromagnetic waves. Prerequisite: Physics 341.

Physics 360. Thermodynamics. Credit 4 hours. The first, second, and third laws of thermodynamics; the properties of the entropy, enthalpy, free energy, and internal energy functions; reversible and irreversible processes; applications to homogeneous and hetrogeneous systems; chemical reactions and the mass action law. Prerequisite: General Physics and Calculus.

Physics 362. Kinetic Theory and Statistics. Credit 3 hours. A lecture and problem course presenting the fundamentals of kinetic theory and an elementary introduction to statistical mechanics. Topics covered include equations of state, the distribution law, viscosity, thermal conduction, diffusion, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics and applications. Applications are discussed. Prerequisite: Physics 360 or consent of instructor.

Physics 381. Atomic Physics. Credit 4 hours. A lecture and problem course presenting our modern knowledge of the nature and properties of electrons, light quanta, atoms, and molecules. Topics include the atomic nature of matter, the properties of free electrons, photons and their interaction with matter, atomic spectra and structure, molecular spectra and structure, an introduction to the ideas of quantum mechanics, binding in molecules and crystals, and an introduction to some solid state phenomena. Prerequisite: General Physics and Calculus.

Physics 382. Nuclear Physics. Credit 3 hours. A lecture and problem course presenting our modern knowledge of the properties of nuclear particles, natural and artificial radioactivity, laboratory equipment for producing and studying high energy particles, nuclear disintegration, the interaction of nuclear particles with each other and with matter, cosmic rays, mesons and recent developments in high energy nuclear physics, and the application of nuclear phenomena to some practical problems. Prerequisite: Physics 381.

Physics 383. Atomic Physics and Quantum Theory for Engineers. Credit 3 hours. Introduces the student to the basic concepts of quantum theory which underlie modern theories of the properties of materials. Topics covered include elements of atomic and nuclear theory, kinetic and statistical theory, experimental basis of quantum theory, Schrodinger's equation and simple applications, atomic spectra and atomic structure, quantum states of molecules, band theory of solids, and quantum statistics. Lectures and problems. Prerequisite: General physics; general chemistry; Mathematics 345 or equivalent.

POLITICAL SCIENCE

Pol. Sci. 150. American Government: Organization and Powers. Credit 3 hours. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions;

civil and political rights; party system; nature, structure, powers, and procedures of legislative, executive, and judicial departments in state and nation. Prerequisite: Sophomore standing.

Pol. Sci. 151. American Government: Functions. Credit 3 hours. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power, regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. Prerequisite: Sophomore standing; Political Science 150 or consent of the department.

Pol. Sci. 381. American Foreign Relations. Credit 3 hours. Participation in international affairs; presidential initiative; development and organization of the Department of State; diplomatic intercourse; consular service; treaty-making power; development of foreign policy and its application to areas of major interest. Prerequisite: Six hours of political science or history.

Pol. Sci. 384. International Relations. Credit 3 hours. An examination of the nature of the national state system, of the forces affecting international relations, of the sources of conflicts in international politics, and of their solution. Prerequisite: Six hours of political science or history.

PSYCHOLOGY

Psych. 100. Introduction to Psychology. Credit 4 hours. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. Prerequisite: Second semester freshman standing.

Psych. 105. Advanced General Psychology. Credit 4 hours. An introduction to the basic research in the areas of perception, learning, thinking, and emotion. The major emphasis is on scientific method, experimental techniques, methodological problems, and applications to personality research. Prerequisite: Psychology 100 or equivalent, or consent of instructor.

Psych. 135. Statistical Methods in Psychology. Credit 3 hours. Application of elementary statistical methods to psychological data. No credit for this course will be given to students who receive credit for Economics 170 or Mathematics 161. Prerequisite: Psychology 100.

Psych. 145. Industrial Psychology. Credit 3 hours. A consideration of socio-psychological principles of behavior in business and industry and of the scientific methods of investigation in this area, and a survey of specific methods of personnel technology. Credit is not given for both Psych. 145 and Psych. 245 at Urbana. Prerequisite: Psychology 100.

Psych. 150. Personality and Human Relations. Credit 3 hours. An introduction to the study of personality in relationship to the social environment. Application of psychological principles to social problems. Prerequisite: Psychology 100 or equivalent.

RHETORIC

Rhetoric 101. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension

and expression of written English. Students with 95 or more credit hours receive only 2 hours credit.

Rhetoric 102. Freshman Rhetoric and Composition. Credit 3 hours. This course provides elementary training and practice in the comprehension and expression of written English. Students with 95 or more credit hours receive only 2 hours credit. Prerequisite: Rhetoric 101.

Rhetoric 133. Principles of Composition. Credit 3 hours. Practice in exposition with emphasis on organization, paragraphing and sentence structure. For the student whose career requires competence in writing clear, precise prose as an adjunct to other professional activity. Credit is not given for Rhetoric 133 in addition to Rhetoric 143. Prerequisite: Rhetoric 102 or equivalent.

Rhetoric 143. Intermediate Expository Writing. Credit 3 hours. Practice in expository types, with emphasis on style and critical analysis. Recommended for rhetoric majors. Credit is not given for Rhetoric 143 in addition to Rhetoric 133. Prerequisite: a grade of "A" or "B" in Rhetoric 102 or consent of instructor.

Rhetoric 144. Narrative Writing. Credit 3 hours. Practice in description, narrative sketches, stories. Prerequisite: Rhetoric 101 and 102; sophomore standing.

Rhetoric 151. Business Letter Writing. Credit 3 hours. Study of the correspondent's problems in business and practice in writing letters, with emphasis on organization, persuasion, and presentation from the reader's point of view. For the student whose career will require competence in writing letters. Prerequisite: Rhetoric 101 and 102.

Rhetoric 246. Modern English Grammar. Credit 3 hours. Definition and meaning; the use of dictionaries, grammars; a survey of syntax, etc. Prerequisite: Junior standing.

RHETORIC FOR FOREIGN STUDENTS

(See also Speech for Foreign Students)

Rhetoric 103. English as a Foreign Language. No credit. An intensive review course in basic English structure for foreign students who are inadequately prepared for Rhetoric 101. Prerequisite: Reading knowledge of English and ability to understand instructions.

Rhetoric 104. English as a Foreign Language. No credit. A continuation of Rhetoric 103. A rapid and intensive review of basic English structure and a study of more complicated sentence patterns with practice in oral and written composition, designed for students who may be inadequately prepared for Rhetoric 101. Prerequisite: Rhetoric 103 or consent of instructor.

Rhetoric 105. English as a Foreign Language. No credit. Intensive writing practice, designed to remedy the foreign student's problems in the area of his special difficulties. May be taken concurrently with Rhetoric 101. Prerequisite: Rhetoric 104 or consent of instructor.

RUSSIAN

Russian 101. Elementary Russian. Credit 4 hours. Reading, writing, oral-aural practice, elements of grammar. For students who have had no

work in Russian. No credit toward graduation is given for Russian 101 without Russian 102. Students with 95 or more credit hours receive only 3 hours credit. All students in this course are required to register for one hour of work weekly in the language laboratory.

Russian 102. Elementary Russian. Credit 4 hours. Reading, writing, oral-aural practice, elements of grammar. Continuation of Russian 101. Students with 95 or more credit hours receive only 3 hours credit. All students in this course are required to register for one hour of work weekly in the language laboratory.

Russian 103. Intermediate Russian. Credit 4 hours. Reading, oral-aural practice, systematic functional grammar. Prerequisite: Russian 102 or equivalent.

Russian 104. Intermediate Russian. Credit 4 hours. Reading, oral-aural practice, systematic functional grammar. Prerequisite: Russian 103 or equivalent. Continuation of Russian 103.

SOCIAL SCIENCES

Soc. Sci. 111. The Individual in Society. Credit 4 hours. A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 113. World Patterns and World Problems. Credit 4 hours. A general education course designed to bring the student to an understanding of the geographic, economic, an political bases of the present world situation. Students with 95 or more credit hours receive only 3 hours credit.

Soc. Sci. 116. Family Living. Credit 4 hours. The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. Prerequisite: Sophomore standing or consent of instructor.

SOCIOLOGY

Sociol. 100. Introduction to Sociology. Credit 3 hours. Introductory analysis and description of the structure and dynamics of human society. Special emphasis is placed on the application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification. Prerequisite: Sophomore standing.

Sociol. 130. Society and Individual Development. Credit 3 hours. Nature of person and relation to institutions, social order, and development. Prerequisite: Sociology 100.

Sociol. 131. Social Problems. Credit 3 hours. Introductory survey of sociological aspects of chief modern social problems, stressing the social interrelationships and culture conflicts involved in their genesis, significance, and amelioration or prevention. (The nature and the treatment of such community problems as crime, juvenile delinquency,

race, old age, physical and mental health, recreation and leisure, etc., will be considered in this course.) Prerequisite: Three hours of sociology or eight hours of social science.

Sociol. 270. Population and Human Ecology. Credit 3 hours. Population in relation to resources; concentration and dispersion of people; population facts and theories; cultural and demographic factors in population replacement; structural and spatial distribution and movement of population and theories of human ecology. Designed primarily for students in sociology, geography, economics, biology (premedicine), political science, history and education. Prerequisite: Sociology 100 or consent of instructor; junior standing.

Sociol. 276. Sociology of the City. Credit 3 hours. Study of urban structure and ecology, particularly in light of the planning movement and the urban populations; growth and development of urban communities. Prerequisite: Sociology 100, or 104 and 105, or Division of General Studies 151 and 152; junior standing.

SPANISH

Spanish 101. Elementary Spanish. Credit 4 hours. For students who have no credit in Spanish. Students with 95 or more credit hours receive only 3 hours credit. No credit toward graduation is given for Spanish 101 without 102. All students in this course are required to register for one hour of work weekly in the language laboratory.

Spanish 102. Elementary Spanish. Credit 4 hours. Continuation of Spanish 101. Students with 95 or more credit hours receive only 3 hours credit. Prerequisite: Spanish 101 or one year of high school Spanish. All students in this course are required to register for one hour of work weekly in the language laboratory.

Spanish 103. Intermediate Spanish. Credit 4 hours. Rapid reading, review of grammar, composition, conversation. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 104. Intermediate Spanish. Credit 4 hours. Continuation of Spanish 103. Prerequisite: Spanish 103 or three years of high school Spanish.

Spanish 113. Elementary Composition and Conversation. Credit 2 hours. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. Prerequisite: Spanish 102 or two years of high school Spanish.

Spanish 114. Elementary Composition and Conversation. Credit 2 hours. May be taken concurrently with Spanish 104. Does not count toward the major in Spanish. Prerequisite: Spanish 113 or equivalent.

Spanish 201. Introduction to Spanish Literature. Credit 3 hours. Reading of representative authors of Spain. Prerequisite: Spanish 104 or four years of high school Spanish.

Spanish 202. Introduction to Spanish American Literature. Credit 3 hours. Reading of representative authors of Spanish America. Prerequisite: Spanish 104 or four years of high school Spanish.

SPEECH

Group Remedial Speech. No credit. Students with articulatory problems, particularly those with foreign dialects, may register for this course at the Speech Improvement Laboratory, Room 303. Prerequisite: Consent of the instructor.

Speech 101. Principles of Effective Speaking. Credit 3 hours. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. Credit 3 hours. Students with 95 or more credit hours receive only 2 hours credit.

Speech 105. Voice and Articulation. Credit 2 hours. A drill course for improving the use of the normal speaking voice. Credit 2 hours. Students with 95 or more credit hours receive only 1 hour credit.

Speech 107. Parliamentary Procedure. Credit 2 hours. Principles and practice of parliamentary procedure. Students with 95 or more credit hours receive only 1 hour credit.

Speech 111. Business and Professional Speaking. Credit 2 hours. Study, preparation, and presentation of the chief types of business speeches, with special attention to conferences, sales talks, interviews and job applications. Prerequisite: Speech 101; sophomore standing.

Speech 113. Group Discussion and Conference Leadership. Credit 3 hours. Study of leadership, group process, and interpersonal relations in the small group, conference, and the public forum, with emphasis on practice in leading and participating in various types of public discussion and conference, with materials drawn from current public questions. Prerequisite: Sophomore standing. By permission of the head of the department, the prerequisite may be waived for Edmund J. James Scholars and other superior students. Offered only in the second semester.

Speech 121. Advanced Public Speaking: The Logical Bases of Discourse. Credit 3 hours. Study of the theory of argument—e.g., evidence, reasoning, and construction of briefs; practice in formal and informal forms of debate and public discourse on current public questions. Prerequisite: Speech 101; sophomore standing. By permission of the head of the department, the prerequisite may be waived for Edmund J. James Scholars and other superior students. Offered only in the first semester.

Speech 141. Oral Interpretation of Literature. Credit 3 hours. Principles of interpretation, analysis, and oral reading of prose literature, dramatic literature, and verse. Students with 95 or more credit hours receive only 2 hours credit.

Speech 161. Fundamentals of Acting. Credit 3 hours. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. Prerequisite: Credit or concurrent registration in Speech 141. Offered only in the second semester.

Speech 164. Radio Speaking. Credit 2 hours. Preparation and presentation of the chief types of radio speeches, and of the interview, round table, and discussion; microphone experience.

Speech 221. Advanced Public Speaking: The Psychological Bases of Discourse. Credit 3 hours. Study of the processes of motivation as applied to speeches intended to influence group opinion and action; practice in the preparation and delivery of short persuasive speeches. Prerequisite: Speech 101; junior standing. Offered only in the first semester.

SPEECH FOR FOREIGN STUDENTS

(See also Rhetoric for Foreign Students.)

Speech 103. Speech for Foreign Students. No credit. A study of the sounds and intonation patterns of American English and the relation of sound to spelling, including drill sessions designed to improve the student's ability to speak and understand English at normal conversational speed. Prerequisite: Reading knowledge of English and ability to understand instructions.

Speech 104. Speech for Foreign Students. No Credit. Pronunciation of English for students whose native language is not English. A study of the sounds and intonation patterns of American English, designed to improve the student's ability to speak at a normal conversational speed. Course deals with material in pronunciation similar to Speech 103 but is designed for more advanced students. Prerequisite: Speech 103 or consent of the instructor.

STUDENT COUNSELING SERVICE

(Group Offerings in Academic Achievement and Career Planning.)

S. C. S. 101. Reading Improvement. No Credit. For students who wish to increase their rate of reading or to improve their vocabulary and comprehension skills.

S. C. S. 102. Study Skills Improvement. No credit. For students who need to develop more effective methods of study. Practice in studying reference materials competently, improving concentration, taking meaningful notes, and preparing for examinations.

S. C. S. 103. Vocabulary Development. No credit. For students who need assistance in the development of language skills. Discussions on the use of vocabulary in thinking and communication. Practical exercises in vocabulary building.

S. C. S. 104. Career Planning. No credit. For students who wish to clarify their vocational goals. Focuses on a self-evaluation of abilities, interests, and personal needs as bearing on occupational choice.

THEORETICAL AND APPLIED MECHANICS

T. A. M. 150. Analytical Mechanics (Statics). Credit 2 hours. Resultants of force systems, algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of trusses, frames, etc.; forces due to friction; centroids. Prerequisite: Physics 101 or 106; registration in Mathematics 143.

T. A. M. 151. Analytical Mechanics (Statics). Credit 3 hours. Resultants of force systems, algebraic and graphical condition of equilibrium for

force systems, moment diagrams, virtual work, forces due to friction, centroids. Prerequisite: Physics 106; registration in Mathematics 143.

T. A. M. 154. Analytical Mechanics (Statics and Dynamics). Credit 4 hours. A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students. Prerequisite: Physics 106; Registration in Mathematics 143.

T. A. M. 156. Analytical Mechanics (Statics and Dynamics). Credit 5 hours. A combination of Theoretical and Applied Mechanics 150 and 211. Prerequisite: Physics 106; Registration in Mathematics 143.

T. A. M. 171. Elements of Mechanics (Statics). Credit 3 hours. Resultants and equilibrium of force systems; conditions of equilibrium appiled to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. Prerequisite: Mathematics 123.

T. A. M. 172. Strength of Materials. Credit 3 hours. Relationships between external forces acting on beams and the stresses produced; shear, moment, slope and deflection diagrams; moment of inertia; columns. For architects only. Prerequisite: Theoretical and Applied Mechanics 171.

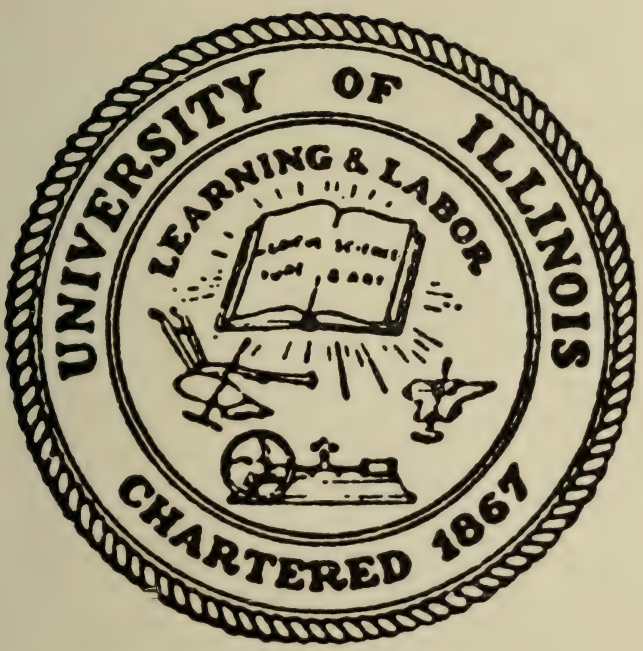
T. A. M. 211. Analytical Mechanics (Dynamics). Credit 3 hours. Displacement, velocity, and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, impulse and momentum. Prerequisite: Theoretical and Applied Mechanics 150 or 151; Mathematics 143.

T. A. M. 221. Elementary Mechanics of Deformable Bodies. Credit 3 hours. Elastic and inelastic relationships between external forces (loads) acting on deformable bodies and the stresses and deformations produced; tension and compression members; members subjected to torsion and to bending; buckling (columns); combined stresses; repeated loads (fatigue); energy loads, impact; influence of properties of materials. Prerequisite: Theoretical and Applied Mechanics 150 or equivalent; Mathematics 143.

T. A. M. 223. Mechanical Behavior of Solids. Credit 1 hour. Influence of loading conditions and environment on the behavior of engineering materials; effects of rate of loading, time, temperature, number of stress cycles, and state of stress on the ductile and brittle behavior of materials; significance of mechanical properties. Prerequisite: Registration in Theoretical and Applied Mechanics 221.

T. A. M. 224. Behavior of Materials. Credit 3 hours. Introduction to atomic and molecular structure of metals, cement, concrete, plastics, ceramics, and glass; response of these materials to rapid, steady, and repeated loads at various temperatures (and environments) in terms of rheological models; fracture behavior of specific materials, i.e., stress rupture, brittle fracture, and fatigue of metals and concrete. Prerequisite: Theoretical and Applied Mechanics 221.

T. A. M. 232. Fluid Mechanics. Credit 3 hours. Analysis of flow of fluids in pipes and in open channels; Bernoulli's theorem; viscosity, laminar and turbulent flow; effects of jets on vanes; hydraulic similitude; dimensional analysis; Reynold's and Froude's numbers. Prerequiste: Theoretical and Applied Mechanics 211.


UNIVERSITY OF ILLINOIS
LEARNING & LABOR
CHARTERED 1867

Index

Accountancy courses, 116
Activities, extra-curricular, 68
  Student fee, 51-53
Administrative officers, 11-12
Admission, 27
  Examinations, 41-42
Priority Periods, 40-41
  Requirements, 30-46
    General University, 30
    Gifted students, 46-47
    Lowest quarter students, 36
    Nonresident students, 37-39
    Special admissions, 44
    Special scholastic requirements, 39-40
    Subjects for specific college and curricula, 34-35
    Transfer students, 37-39
Advanced Placement, 47-50
Aeronautical Engineering, curriculum, 87
Anthropology courses, 117
Architectural Engineering, curriculum, 92
Architecture, 90
  Admission, 34
  Courses, 117-118
  Curriculum, 92
  Electives, 91
  Transfer to Urbana, 91
Army Reserve Officers' Training Corps, 113
  Courses, 136
Art, 93
  Admission, 34
  Courses, 118-119
  Curriculum, 93
Athletics, 72

Biological Science courses, 119-121
Board of Trustees, 10
Bookstore, 67
Business Law, 121

Calendar, 13
Ceramic Engineering curriculum, 88
Chemical Engineering, curriculum, 99
Chemistry courses, 121-123
  Curriculum, 99
Chicago Departments Committee, 10
Civil Engineering, courses 123-124
  Curriculum, 88
Commerce and Business Administration, College of, 77
  Admission, 34
  Commerce and Law, 79
  Commercial teaching, 80, 82
  Curriculum, 81
  Electives, 78
  Prejournalism, 80
  Requirements for all commerce students, 81-82
  Requirements for graduation, 78
Counseling Services, preadmissions counseling, student counseling services, 61
Courses of instruction, 116
  Correspondence, 6
  Extramural, 5
  Required of all students, 74

Dance courses, 141
Dean of Men, 59
Dean of Students, 59
Dean of Women, 59
Debating, 70
Dentistry, predental curriculum, 102
Deposits:
General, 53
Military, 54
Tuition and Fee, 52

Economics courses, 124-125
Education courses, 125-126
Electives, Architecture, 91
Commerce, 78
Engineering, 85
Liberal Arts and Sciences, 97
Electrical Engineering courses, 126
Curriculum, 88
Employment, student, 61
Engineering, College of, 84
Admission, 34
Aeronautical, 87
Ceramic, 88
Civil, 88
Common program for freshmen, 86
Electrical, 88
Engineering Mechanics, 88
Engineering Physics, 89
General Engineering, 89
Industrial, 90
Liberal Arts combined program, 101
Mechanical, 90
Metallurgical, 90
Requirements for graduation, 84
Engineering Physics, curriculum, 89
English courses, 126-127
Examinations, entrance, 41-44

General education development, 43-44
Lowest quarter, 36
Extracurricular activities, 68

Faculty, 15
Fees, 51-55
Finance courses, 127-128
Food Service, 66
Forestry, curriculum, 95
French courses, 128

General Deposit, 53
General Educational Development, 43-44
General Engineering courses, 129
Curriculum, 83
Geography courses, 129-130
Geology courses, 130-131
German courses, 131
Grading system, 74-75

Health Education courses, 141
Health Service, 67
History courses, 131-132
Home Economics curriculum, 95
Honors, 68
Hospital-Medical-Surgical Insurance, 61
Housing, 6
Humanities courses, 132-133
Hygiene courses, 133

Industrial Engineering, curriculum, 90

James Scholars, 50
Journalism and Communications, prejournalism curriculum, 80, 102

Law, prelaw curricula, 79, 103
Liberal Arts and Sciences,

College of, 95
Admission, 35
Chemistry and Chemical Engineering, 98
Continuation program in Nursing, 104
Engineering combined program, 101
Forestry, 101
General curriculum, 95
Home Economics, 102
Nursing, 104
Occupational Therapy, 105
Physics, 105
Predental, 102
Prejournalism, 102
Prelaw, 103
Premedical, 103
Prepharmacy, 104
Preveterinary medicine, 109
Required subjects, 96
Requirements for graduation, 96-98
Teacher Education, 107
Library, 64
Loan funds, 60

Management, 133
Marketing, 133
Mathematics courses, 133-135
Mechanical Engineering courses, 135-136
Curriculum, 90
Medicine, premedical curriculum, 103
Metallurgical Engineering, curriculum, 90
Military Scholarships, 58
Military Science and Tactics, 113
Courses, 136
Military Service Credit, 57
Miscellaneous fees, 53-54
Music, courses, 137

Nonresident students, admission, 37
Tuition, 51-52
Nursing, 104
Continuation program, 104

Occupational Therapy, 105
Admission, 34, 39-40

Pharmacy, prepharmacy curriculum, 104
Philosophy courses, 137
Physical Education, College of, 110
Courses, 137-141
Physical Science courses, 141-142
Physics courses, 142-143
Curriculum, 89, 105
Political Science courses, 143-144
Prejournalism, curricula, 80, 102
Predental curriculum, 102
Prelaw, curricula, 79, 103
Premedical curriculum, 103
Prepharmacy curriculum, 104
Preveterinary curriculum, 109
Progressive Admission Plan, 40-41
Psychology courses, 144

Recreation courses, 131
Refunds of fees, 55
Rhetoric courses, 144-145
R.O.T.C., 8, 113
Russian courses, 145

Scholarships, 55-56
Military, 56, 58
Scholastic requirements admission, 36
Selective Service deferment, 58
Semester fees, 51
Semester hour, definition, 75
Social Science courses, 146
Sociology courses, 146-147

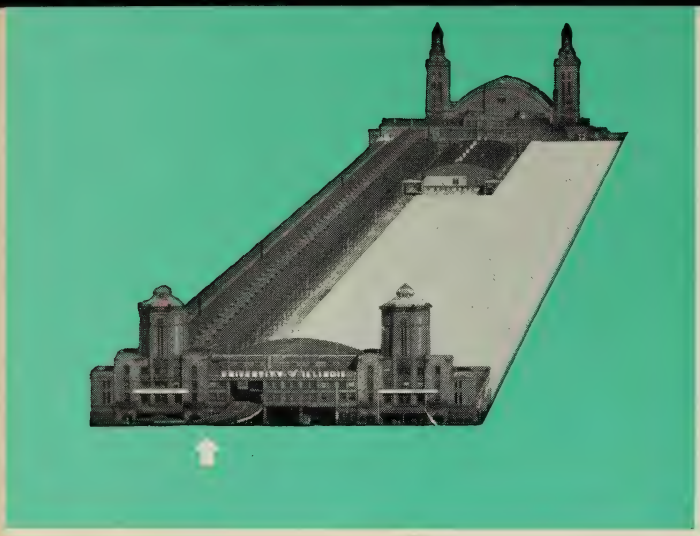
Spanish courses, 147
Speech Improvement Laboratory, 64
Speech Courses, 148-149
Student Counseling Service, 61
Courses, 149
Student Welfare, 59
Dean of Men, 59
Dean of Students, 59
Dean of Women, 59
Hospital-Medical-Surgical Insurance, 61
Loan funds, 60
Speech Improvement Laboratory, 64
Student Counseling Service, 61
Student Employment, 61
Subjects required for specific colleges and curricula, 34-35
Summer Session fees, 52

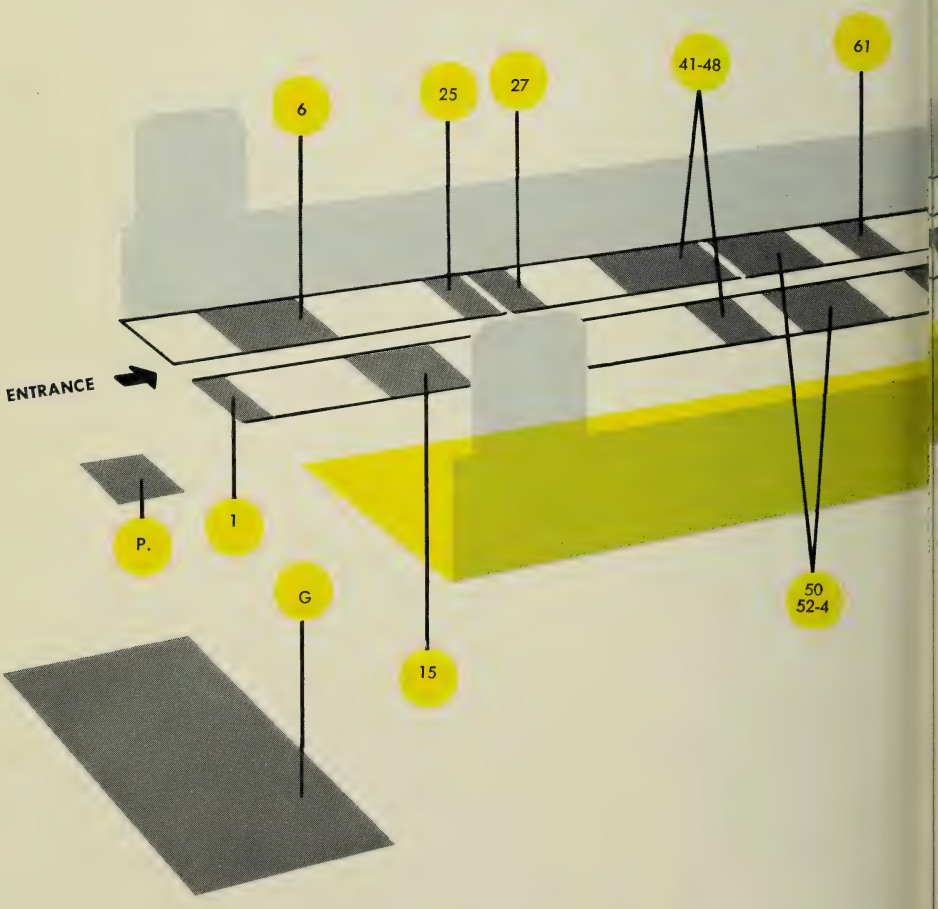
Talented Student Program for High School Seniors, 46-47
Teacher Education, curricula, 107
Theoretical and Applied Mechanics courses, 149-150
Transfer students, admission, 37-39
Tuition and Fees, 51-55
Admission Deposit, 52
Deferred, 54
General Deposit, 53
Hosp. Med. Ins. fee, 53
Military Deposit, 54
Miscellaneous fees, 53-55
Refunds, 55
Semester fees, 51
Summer Session fees, 52

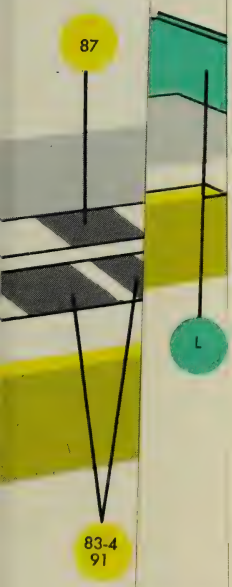
University Services, 59
Urbana, transfer to, 57

Veterans' information, 57
Veterinary Medicine, preveterinary medicine curriculum, 109

Withdrawal from University, 57




6
25
27
41-48
61
ENTRANCE
P.
1
G
15
50
52-4



INTERE

DING LABO
D TESTING

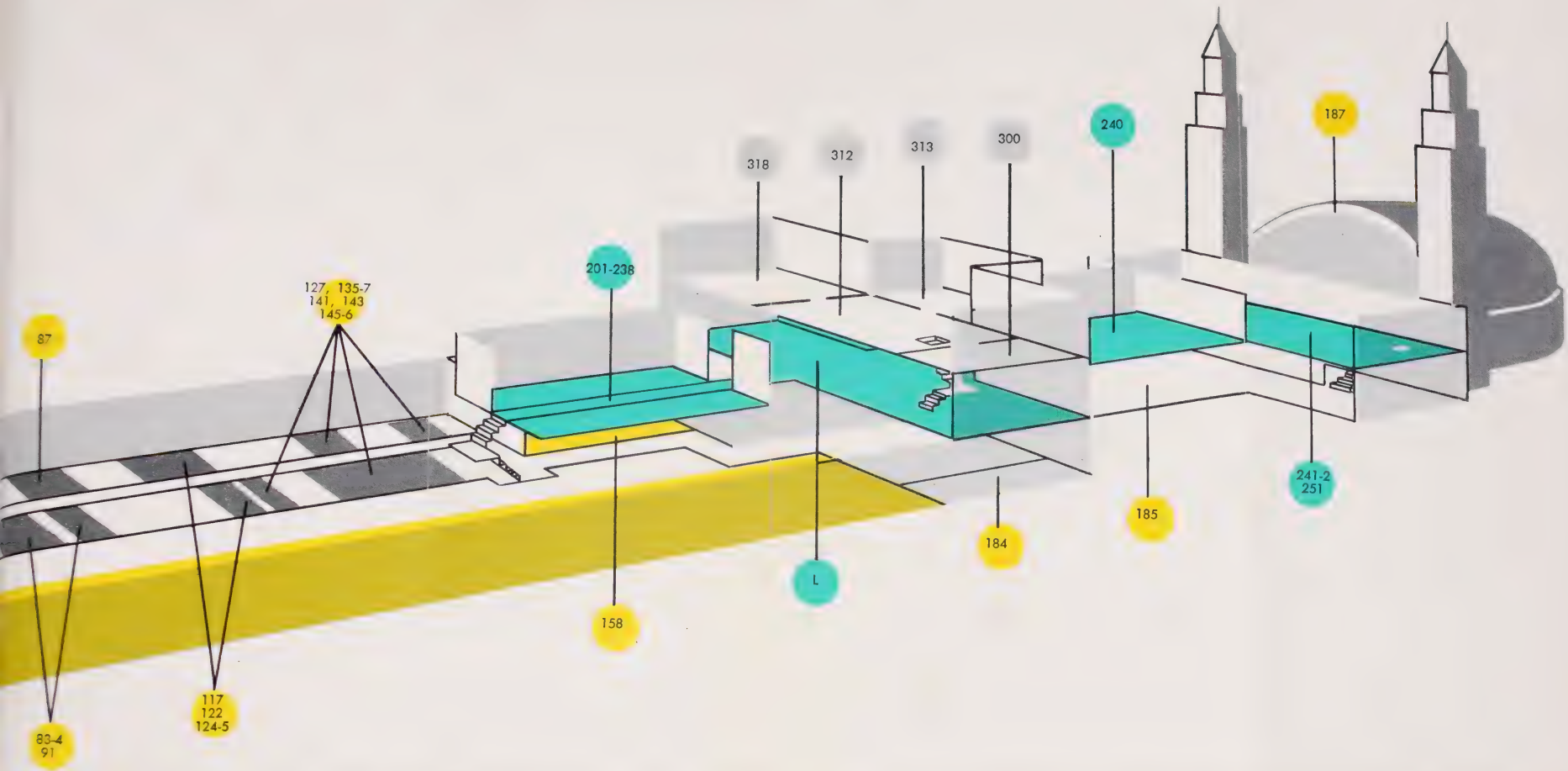
ROOMS

KSTORE

ICS LABORA

ERAL ENGIN
WING

ICAL PLANT



ROOM NUMBERS OF DEPARTMENTS AND POINTS OF INTEREST

- P. UNIVERSITY POLICE HEADQUARTERS
- G. MEN'S GYM
- 1 INFORMATION DESK
- 6 SNACK BAR AND LOUNGE
- 15 ADMISSIONS AND RECORDS OFFICE
- 25 ASSOC. DEAN OF LAS
- 27 ASSOC. DEAN OF COMMERCE
- 41-48 BIOLOGICAL SCIENCES LABORATORIES
- 50, 52-4 CHEMISTRY LABORATORIES
- 61 CONCRETE TESTING LABORATORY
- 64 MACHINE SHOP
- 70-1, 77 WELDING LABORATORY, FOUNDRY, SAND TESTING LABORATORY
- 83-4, 91 ART ROOMS
- 87 BOOKSTORE
- 117, 122, 124-5 PHYSICS LABORATORIES
- 127, 135-7, 141, 143, 145-6 GENERAL ENGINEERING DRAWING
- 158 PHYSICAL PLANT
- 184 ASSOC. DEAN OF ENGINEERING
- 185 STUDENT CAFETERIA
- 187 AUDITORIUM AND WOMEN'S GYM
- 201-238 LECTURE ROOMS AND CLASSROOMS
- L LOUNGE
- 240 LIBRARY
- 241-2, 251 ARCHITECTURE ROOMS
- 300 STUDENT COUNSELING BUREAU
- 312 LOUNGE
- 313 DEAN OF STUDENTS, DEAN OF MEN, DEAN OF WOMEN
- 318 HEALTH SERVICE

UNIVERSITY OF ILLINOIS-URBANA
3 0112 111991425